
This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

<https://books.google.com>





*Populars flowers [ed. by
R. Tyas] 3 ser*

Popular flowers

10. Θ. 320.





POPULAR FLOWERS.

THE GERANIUM;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED

A LIST OF NEW AND CHOICE PLANTS.

WITH A COLOURED FRONTISPICE.

SECOND EDITION.



LONDON:

R. TYAS, 8, PATERNOSTER ROW.

MDCCCLXIII.

Price Sixpence.

CONTENTS.

INTRODUCTORY REMARKS	1
THE GERANIUM	2
ITS HISTORY	ib.
THE PELARGONIUM	ib.
ITS HISTORY	3
PROPAGATION:	
CUTTINGS	ib.
SEEDLINGS	4
POTTING OF ROOTED CUTTINGS	ib.
REPOTTING FOR FLOWERING	5
WATERING	ib.
PRUNING	ib.
GRAFTING	6
TO OBTAIN NEW VARIETIES	7
WINTER TREATMENT	8
INSECTS	9
MR. CATELEUGH'S MANAGEMENT	ib.
MR. COOK'S DITTO	11
LIST OF CHOICE PLANTS	13

THE GERANIUM.

INTRODUCTORY REMARKS.

THE Geranium and Pelargonium have acquired a reputation and popularity well deserved and universal in extent. The ease with which they can be propagated and cultivated, the beauty and variety of their flowers, and the long time they continue in bloom have, combined together, gained and retained for them the estimation in which they are held. Many thousands are annually sold in Covent Garden, and millions are grown by gardeners in every quarter of the country, not to mention the untold quantities in private collections which are being yearly increased and improved. Yet, considering the admiration which all feel for these flowers, it is matter of surprise that so few of those who possess them are so little acquainted with their proper treatment, simple though it be, and the pleasure they feel in beholding their beauty is marred by seeing them prematurely decay, droop, and die. For such these few pages are compiled, and we hope that after their perusal every reader will have thoroughly acquired the requisite knowledge to tend and protect their favourites in all seasons.

THE GERANIUM,

So named by Linnaeus, from *geranos*, a crane, on account of the termination of the carpels bearing some fancied resemblance to the beak of that bird, is placed in the sixteenth class (Monadelphia,) and sixth order (Decandria,) of his system. In the Natural System, it is included in the dicotyledonous division, and forms, with other plants of close affinity, the order Geraniaceæ, of which it is the type.

HISTORY.—Several species of the Geranium are indigenous to this country, many of them yielding beautiful, but small flowers. The greater number, however, of the more esteemed kinds are importations from foreign countries, naturalized in the greenhouse and frame, and some of these were brought here as early as the latter part of the sixteenth century, but the majority during the present. Their medicinal properties are astringent, and in North America one species (*G. maculatum*) is in high repute as such.

THE PELARGONIUM,

So named from a supposed resemblance of its capsules to the head and beak of the Stork, (*Pelargos*) in the Linnaean system, stands in the same class as the Geranium, but in the fourth order (Heptandria), and in the Natural System is placed in the same division and order, Geraniaceæ.

HISTORY.—The Pelargonium, though so closely allied to the Geranium as to warrant its being ranged in the same family, may be said to be purely exotic, while we have seen that very many kinds of the latter are indigenous to Great Britain. Nearly all the new species imported are from the Cape of Good Hope, and this importation commenced so early as 1701, since which period nearly three hundred species have from time to time been brought in. Independent of their increase in this manner, an immense number of varieties have been procured in this country by hybridization, and every year some addition thereto is made by this means.

The Geraniums and Pelargoniums now cultivated as Florists' Flowers, have been so blended together by hybridization that they are now universally known under the common name

GERANIUM,

and the matter contained in this little treatise is equally applicable to both.

PROPAGATION.—CUTTINGS. When the greater part of your plants have ceased flowering cut down the strongest and most healthy plants, taking your cuttings, made horizontally through the branch, from the tops, and insert them, without disturbing the outer bark round the bottom of the cutting, in a compost formed of fresh loam and river sand. In filling the pot with this compost, first place a little moss over the potshreds, it has the quality of absorbing moisture quickly and imparting it slowly, which is of great service to vegetation when requiring a small but continual supply. Having

placed all your cuttings in the pots, water them, using a finely pierced watering can, and allow them to stand until the leaves are perfectly dry, then remove them to a close frame with a little bottom heat, carefully shading them from the sun's rays; give them a little air for about half an hour before nine in the morning, to dry off the damp on the leaves, but at other times keep the frame close. Continue this treatment until the roots are formed, when the air must be admitted more freely, until they are ready to be potted off which is usually from four to six weeks after planting. If you plant the slips in the open ground in June, not one in fifty will fail in rooting within a month.

SEEDLINGS.—Sow the seed in pans or boxes, in a light soil, and cover them with about half an inch of the same. When the young plants have formed two or three pairs of leaves, transplant them into small pots, keep them in a greenhouse or in the dwelling-house, and treat them in the same manner as directed for cuttings.

Where the plants are directed to be placed in the greenhouse it must be understood that the dwelling-house will, to a considerable extent, answer as well, but the temperature of the room in which they are placed should be carefully attended to; and in winter, when a fire is lighted in that room, they should be removed to another where there is none.

FIRST POTTING OF ROOTED CUTTINGS.—Pots for small plants should be four inches and a half in diameter within the rim; for those which grow stronger and more freely five inches and a half; for delicate kinds, mix a barrow full of leaf-mould and loam, in equal proportions, with the same quantity of bog soil; and half a barrowful of river sand; for

stronger growing plants, use one half loam well chopped and one fourth each of bog soil and sharp river sand.

When you have potted all your plants place them in a frame, greenhouse, or dwelling house window for a few days, keeping them rather close until they have recovered the shock of their removal.

Do not crowd the plants or they will become spindled and the lower lateral branches and leaves will drop off; harden them gradually, administering water sparingly to such as appear dry, and, when able to bear it, allow a free circulation of air, increasing or diminishing it according to the mildness or severity of the weather; they need no artificial heat except in frost. Those who have no greenhouse should, in frosty weather, adopt the north country mode of *raking* the fire, as it is termed, in the apartment where the plants are kept. This is done by laying a quantity of small coal on a good fire, and sprinkling it with water just before going to bed; and it continues burning all night without danger.

REPOTTING FOR FLOWERING.—About the end of March take those plants which are showing for flowers, and remove them into pots from six to seven inches deep, having due regard to the size of your plants, using composts as directed in first potting of rooted cuttings, only in lieu of placing moss over the potshreds use bone dust for that purpose; and take care the bone dust comes not near the surface.

WATERING.—When the stronger kinds of your Geraniums have filled the pots, supply them freely with liquid manure; and by far the best mode of apply it is to place the pot up to the brim in a vessel containing the water

for about ten minutes, and then drain it well. In mild and clear weather syringe them often overhead with clean water. When in full growth, and in flower, give a plentiful supply of water by immersion, as just directed.

PRUNING.—Towards the end of June, or in the early part of July, when the first show of flowers is past, examine your plants carefully and prune them. They will thus be led to throw out shoots from the lower part of the stems, and form dwarf bushy plants. They become much more handsome in appearance, and flower in greater profusion, than they do when left to grow at random without this treatment. After pruning they must be kept in the greenhouse till the buds begin to develope their leaves from the old wood ; then put them in some warm and sheltered spot in the open air until the autumn, when they must be again removed to the greenhouse, or placed in a cold frame:

GRAFTING.—The great annual increase of varieties of the Geranium prevents its admirers from keeping a plant of all kinds, but a large stock of varieties may be obtained by grafting, which should be performed as follows,—Pick out a few of the healthiest and strongest plants, selecting in preference those which contain the greatest number of shoots. These should be from two to three years old, as older plants do not grow so well. Take cuttings from these for stocks, and strike them in the usual way, potting them off immediately on the formation of roots ; put them in a frame and shade until they have made fresh roots, and then pinch off the leading shoots to compel them to push out lateral branches and induce a dwarf habit. When they have begun to grow

they will be benefitted by a little manure water, and their growth strengthened, and the success of grafting greatly depends on the health and strength of the stocks. Remove them to larger pots in the summer, and cut them down to within three eyes of the base of each shoot in August. Afterwards treat them as other plants.

In the ensuing summer remove your stocks into pots of a still larger size, about a month before you intend grafting upon them. Two or three days previous to the performance of the operation, to allow the excess of sap to escape, cut down the branches to a clear grown part, about two inches from last year's wood. When the sap has ceased to flow select well ripened shoots three inches in length for scions, from the kinds you desire to engraft, observing that it is desirable that their habit should be as near the same as possible, for if strong and weak kinds be put on the same stock, the former will injure the latter. You must also have due regard to distinctness in the character and colour of the flowers borne by the plants from which you select your scions; leave as many leaves on the scions as you can.

The best method is side or whip-grafting, for which purpose provide yourself with a sharp, thin knife, some damp moss and cotton wick or bass matting; cut in a sloping manner through the scion, letting the cut be about an inch and a half in length; then a corresponding cut through the stock, so that the inner rind of the bark in the scion may come in contact with both sides of the bark in the stock; now tie them together, being careful not to bruise the bark, as in that case the shoot would rot. Then take a little moss, binding it rather tightly round, an inch above the wounded part, and increase it to the size of an egg, and proceed with your other shoots in the same manner. When done, put your plants in a gentle

hotbed, if you have one ; if not, place them in a greenhouse, and shade them until the scions begin to grow, sprinkling them once daily, to keep the moss damp, and to stimulate the growth of the shoots. When they have begun to grow, loosen the moss, but lay it on rather slack for a day or two longer, and then remove it altogether. As the connexion is very slight between the stock and scion at the point where they are united, it is advisable to strengthen them with a short stick, to prevent the wind from breaking off.

To OBTAIN NEW VARIETIES.—These may sometimes be obtained from seed gathered at random from fine flowers, but the most certain mode is impregnation, which must be performed as strictly as possible according to the subjoined rules—

I. The flowers with which the operation is done must be as exactly as may be, in the same stage of development.

II. The anthers must be removed from the flower early in the morning, the pollen being then in a moist condition, and less likely than at any other part of the day to be lost, so as to defeat the object.

III. Use as much pollen for impregnation as you can collect in order to prevent disappointment by its liability to be scattered in the process.

IV. Immediately after impregnation cover the flower with a piece of gauze to keep off bees and other insects.

V. The colours of the two flowers sought to be hybridized should be opposite, or at least distinct.

VI. The plants must be in the open air in such a situation that they may receive the full influence of the sun, and must be carefully protected from heavy rains.

Gather the seed pods as soon as they become brown,

lest, being covered with a downy substance, they may be blown away.

WINTER TREATMENT.—Keep your plants in as dormant a state as possible, and where practicable, in a cold frame well covered, so as to prevent the external moisture and frost from injuring them. Watering the plants imparts too much humidity to them and you may keep them as free from this as you please ; indeed it is not judicious to give them any water at all unless the surface soil around the roots be so dry as to be reduced to a powder. Never use a rosed watering can at this season, and do not allow the water to wet the leaves. Give water very sparingly, as cold is increased by its presence ; after watering, drain them well.

If you have not the means of preserving your plants as above, take them out of the border in Autumn, before they have sustained any injury from the frost, shake off the earth from the roots, suspend them head downwards in a cellar or dark room where they will be safe from the frost. The leaves and shoots will become yellow and sickly : but when planted out towards the end of March, or so soon as the frost is over, they will speedily recover and vegetate luxuriantly.

INSECTS.—The aphis or green-fly is the most destructive insect by which the Geranium tribe is affected, and as prevention is better than cure, it is best to destroy the eggs in winter, by washing your plants with a mixture of strong tobacco water and soft soap ; or if you think that too expensive, hot water at 200 degrees ; in either case they must be cleansed after the washing with a small brush. If you neglect this, watch for the first brood and destroy them by fumigation from tobacco or by the application of

tobacco water; if however you allow them to infest the plants until the summer broods have appeared before you determine on their destruction, make an infusion of quarter of a pound of tobacco in half a gallon of hot water, into which when cold, dip the young shoots, allowing them to remain a few seconds, and if in a very bad condition repeat this; then wash the plants carefully with clean water, and you will generally find the enemy destroyed.

In order to render our little treatise as perfect as possible, we here append the modes of cultivation adopted by Mr. Catleugh of Chelsea, and Mr. Cook of Chiswick, both eminent growers of the Geranium.

MR. CATLEUGH'S METHOD—Place your cuttings in the open border in the course of July, where they will be fully exposed to the meridian sun: In about six weeks the cuttings will have rooted, when pot them in sixties, put them in a shady situation on boards or slates, and in three weeks, when the wood will be hardened, remove them to an exposed and airy spot. Let them remain there till the end of September, and then transfer them to the house to winter, on which occasion stop them at the third or fourth joint and shift them into forty-eights pots, using a compost of turfy loam and sand; give them little air for eight or ten days but after that allow them as much as the state of the weather will admit till the early part of December, when the pots will be well filled with roots, and the plants must be repotted in thirty-twos, adding bone dust cautiously, not allowing it to be near the surface, on account of its drying nature; stop the plants again, and maintain the temperature at forty-five degrees for ten days, and then allow it to fall to forty-two or forty. Damp the flues twice or thrice every night, to keep

the air moist, and admit external air at the top when the weather is favourable. About the middle of February shift those intended for large specimens into forty-twos, and vigorous growers into a size larger. At this time tie each shoot to a proper stake. In the beginning of April discontinue fires, and commence syringing the plants overhead thrice a week, and close the house at night. Continue this treatment for a month, damping the house every evening, and opening the top sashes every morning, and admitting as much air during the day, as may be done with safety.

When they shew bloom, water freely, and shade with canvass. On housing the plants pick off all dead leaves and when the green-fly appears, fumigate with tobacco, taking care that the plants are dry; watering them well a day or two after. When done flowering, remove the plants to an exposed place for a fortnight, to harden the wood, then cut them down. *Compost*—Two barrows-full of good maiden loam with the turf, and one of well rotted cow dung, three years old, one peck of silver sand, and one of bone dust.

For the winter repotting, add a little more sand. The cow manure should be frequently turned in winter, to destroy the worms and insects. [N.B. If not injurious to the Pelargonium, salt would help to destroy worms which breed profusely in this manure when recent.—ED.]

MR. COOK'S METHOD—Strike the cuttings early in June, when rooted, pot in sixties, and place them in a shady situation, on boards or slates, or in a cold frame. When they have taken to the pots, place them in an open spot, and as soon as they will bear the sun without flagging stop them. In September repot in forty-eights, and begin training. In December and January shift into sixteens, such as are suffi-

ciently strong, in which they are allowed to bloom; from the middle of July to the beginning of August, head them down and put in a sheltered situation; and when the shoots are nearly an inch long, shake the soil from the roots, and repot in the same sized pots. As shoots are formed, thin out with care. In the greenhouse the front sashes are kept open on all convenient occasions. In November stop the plants and put a stake to each shoot. In December and January select the strongest plants and pot them in eights, applying additional heat that they may root rapidly. In February syringe in the afternoon, but soon enough to allow them to dry before night. In March repot in No. 2 sized pots and supply water freely; when the flowers begin to open, use a shading of cheese-cloth outside. Admit air before the sun has much power on the glass, which prevents in a great degree the attack of the green-fly. Success now depends on heating. Light fires at three or four P.M., and let them die out at nine or ten; light them again at three or four A.M. Keep the temperature through the night at forty or forty-two degrees Fahrenheit. The soil must be prepared thus—chop turfy loam and lay in a heap, and shake up in form of a mushroom bed, some fresh stable litter. Well water the manure if the weather be dry, and prevent the liquid and steam from passing off by a covering of slates. Allow it to remain in this state fifteen or sixteen days, and then mix with it the same quantity of fresh loam, which operation being completed, cover the compost with fresh loam. In a month or five weeks turn it over three or four times that the manure and loam may be well incorporated. At the end of twelvemonths it is fit for use. To two barrow loads of this add one of leaf mould and a peck and a half of silver sand.

A LIST
OF
THE CHOICEST FLOWERS NOW IN CULTIVATION,
SELECTED FROM
The Catalogues of
Mr. GATLEUGH, Chelsea, and Mr. GAINES, Battersea.

Gaines' Duchess of Sutherland	Gaines' Prince of Wales
„ Lady Sale	„ Princess Royal
„ Emperor Superb	„ Pride of Surrey
„ Lady Duncannon	„ Amulet
„ Royal Adelaide	„ Graciosa
„ Orange Perfection	„ Countess of Eldon.
<hr/>	
Advocate, (G.)	Duke of Cornwall, (G.)
Alba perfecta, (G.)	Defiance, (G.)
Amato, (G.)	Duchess of Kent, (G.)
Amulet, (C.)	Douglas, (<i>Garth.</i>)
Amaranth, (G.)	Dido, G. (<i>Foster.</i>) very large white flower.
Albina, (G.)	Duchess of Sutherland, (C.)
Anna, (C.)	Emma (C.)
Augusta, (C.)	Enchantress, (G.)
Barnaby, (G.)	Evadne, (G.)
Belle of Ware, (G.)	Evelyne.
Comus.	Emily Superb, (G.)
Constellation, (<i>Garth.</i>)	Enterprize, (G.)
Coronet, (C.)	Fire Fly, (G.)
Camille, (C.)	Flora, (G.)
Commodore, (<i>Hodges.</i>)	Flash, (<i>Garth.</i>)
Creole, (C.)	Fair Devonian, (G. & C.)
Captivation, (G.)	Favourite, (<i>Foster.</i>)
Caroline, (G.)	

Flamingo, (<i>Garth.</i>)	Puck, (G.)
Grand Monarch, (K.)	Paragon, (C.)
Gipsy, (<i>Foster.</i>)	Prince of Waterloo, (C.)
Gaines's Attila	Polyphebus, (C.)
— Conspicua	Prospero, (C.)
— Vesta	Pysche, (C.)
— Coronal	Pysiphore, (C.)
— Elegans	Queen of Fairies, (C. & G.)
— Bee's Wing	<i>Garth.</i>
Georgiana, (G.)	Queen of Beauties (C) <i>Garth.</i>
Gipsy, (G.)	Ditto, (G.)
Hebe, (G. & C.)	Rising Sun, (G.)
Hannah, (C.)	Rachael, (G.)
Jessies, C. & G. (<i>Foster.</i>)	Rose of Oxton, (G.)
Jew, (C.)	Rose Perfection, (G.)
John Bull, (C.) <i>Garth.</i>	Roulette, (C.) <i>Garth.</i>
Jubilee, (C.) <i>ditto.</i>	Rosetta, Superb, (C.)
Impericles, (G.)	Rhoda, (C.) <i>Foster.</i>
Laure, (G.)	Sapphire, (C.) <i>Foster.</i>
Lady Sheppard, (G. & C.)	Selina, (C.) <i>Foster.</i>
Isabella Douglas, (G.)	Sir R. Peel, (C.) <i>Foster.</i>
King Rufus, (C.)	Sir R. Peel, (C.) <i>Garth.</i>
Madelina, (C.) L.	Symmetry, (C.) <i>Garth.</i>
Marchioness, (C.) <i>Garth.</i>	Surprise, (C.)
Mammoth, (C.) <i>Garth.</i>	Triumphant, (G.)
Magna Charta, (C.)	The Cid, (G.)
Madame Taglioni, (C.) V.	Tournament, (<i>Garth.</i>)
Mr. Garth, (C.)	Tasso, (<i>Foster</i>)
Model of Perfection, (C.)	Unit, (C.) <i>Garth.</i>
Nautilus, (C.)	Victory Superb, (G.)
Nestor, (C.) <i>Foster.</i>	Vanguard, (G.)
Meteor, (G.)	Van Amburgh, (C.)
Mulatto, (G.)	Violacea Superb, (C.) H.
Madeline, (G.)	Wizard, (C.) <i>Garth.</i>
Ovid, (C.) L.	Witch, (C.) <i>Garth.</i>
Priory King, (G.) &c.	— (C.) W.
Princess Sophia Matilda, (G. and C.)	Wonder, (C.) <i>Garth.</i>
	Wonder of the West, (G.)

Those marked (G) are from Mr. Gaines' List (C) from Mr. Catleugh's.



Digitized by Google

POPULAR FLOWERS.

THE PANSY;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH

NOTICES POETICAL, BOTANICAL, AND HISTORICAL.

TO WHICH IS ADDED

A LIST OF NEW AND CHOICE PLANTS.

“ Are not Pansies emblems meet for thought?
The pure, the chequer’d—gay and deep by turns
A line for every mood the bright things wear
In their soft velvet coats.”

WITH A COLOURED FRONTISPICE.

LONDON:
R. TYAS, 8, PATERNOSTER ROW.

MDCCCLIII.

CONTENTS.

WHAT IS THE PANSY?	13
ITS HISTORY	15
DESIRABLE PROPERTIES AS A CULTIVATED FLOWER	16
PROPAGATION :	
BY SEED	17
TREATMENT OF SEEDLINGS	ib.
BY CUTTINGS	18
GENERAL TREATMENT	19
WATERING	ib.
WINTER TREATMENT	20
MEANS OF OBTAINING NEW VARIETIES	ib.
SPRING FLOWERING	ib.
AUTUMN FLOWERING	ib.
LARGE FLOWERS	21
TRANSPLANTING	ib.
SOIL	ib.
VERMIN	22
LOSS OF VARIETIES.	ib.
PROCURING SEED FROM PLANTS	23
BERTRAM, THE AMERICAN BOTANIST	24
LIST OF CHOICE PLANTS	25

TO CORRESPONDENTS.

If our fair correspondent at Clifton will examine the lower leaf of the Geranium, she will find the name inscribed thereon.

PHILO-CACTUS.—Yes. We shall be glad to receive an account of your mode of cultivation which you find so successful.

A CULTIVATOR OF THE PANSY.—Your communication came too late to be made available.

P. Y.—Declined with thanks.

T H E P A N S Y.

WHAT IS THE PANSY?

“Are not Pansies emblems meet for thought?
The pure, the chequer’d—gay and deep by turns;
A line for every mood, the bright things wear
In their soft velvet coats.”

THIS pretty flower, the favourite alike of poet, florist, and rustic, is a species of violet. Not the modest little flower that perfumes the air with its fragrance on a calm summer’s eve, but a species entirely distinct, both in its habit of growth, and in the form and colour of its flowers. Botanists call it the three-coloured violet, and place it in the fifth class (Pentandria), and first order (Monogynia,) of the artificial System of Linnæus; and in the family Violaceæ, in the Natural System.

The fancies of the poet and the imaginative rustic have bestowed many names upon the Pansy; among others, the variegated violet, forget-me-not, butterfly-violet, three-faces-under-a-hood, heartsease, &c. From Spenser down to

Joanna Baillie, poets have delighted to place it with other floral favourites in their poetic posies. Spenser says—

Strow me the ground with daffadowndillies,
And cowslips, and king-cups, and loved lillies,—
The pretty Pawncé.

And in Comus, the shepherds in their gifts to the metamorphosed nymph, Sabrina, are said to

Throw sweet garland wreaths into her stream,
Of pansies, pinks, and gaudy daffodils.

Again, in "Paradise Lost," we read—

Flowers were the couch,
Pansies and violets, and asphodel,
And hyacinths, earth's freshest, softest lap.

And Bernard Barton has the following lines, wherein he alludes to its variety of names, and to its popularity as a garden flower—

And thou so rich in gentle names appealing
To hearts that own our nature's common lot;
Thou styled by sportive Fancy's better feeling,
A Thought, the Heart's-ease, or Forget-me-not,
Who decks't alike the peasant's garden plot
And castle's proud parterre; with humble joy
Proclaim afresh, by castle and by cot,
Hopes which ought not, like things of time, to cloy,
And feelings time itself shall deepen—not destroy!

Pansy appears to be the most ancient name by which Englishmen have known the flower, and therefore we have preferred it. We find the wild plant plentifully strewed throughout the cultivated fields of our native land, and the pretty little thing seems to us more natural than the pampered minion of the parterre—but we beg the florist's

pardon, every wild flower, growing free as nature formed it, and unintended by the solicitous care of man is in a degenerate condition, and must be carefully trained to render it genteel, and then fed with richest food that plant may feed upon, to give it that rotundity of form which the florist deems its perfection—it is then only worthy of his notice and admiration.

Whether the Pansy be seen in its wild state, partially cultivated, or forced to the florist's standard of perfection, it is to all who love flowers an object of attraction ; the variety of its colours, their depth and richness, the profusion and duration of its bloom render it so ; and few will fail to grow it to their satisfaction who can secure for it a cool and moist yet rich soil, in a sheltered situation.

HISTORY.—For the following concise sketch of the history of the Pansy as a cultivated flower we are indebted to “*Mrs. Loudon's Gardening for Ladies.*”—“*The Heartsease has only within the last few years ranked as a florist's flower. It had long been a favourite in gardens, as its innumerable popular names may testify; but it was reserved for a young lady, aided by an intelligent gardener, to show the world the extraordinary variations of which the flower is susceptible.* About the year 1810 or 1812, the present lady Monck, then lady Mary Bennet, had a small flower garden entirely planted with heartseases in the garden of her father, the late Earl of Tankerville, at Walton-upon-Thames. The young lady naturally wished to get as many different sorts into her garden as possible ; and at her desire, the gardener, Mr. Richardson, raised as many new kinds as he could from seed. From this small beginning the present passion for heartseases took its rise. Mr. Richardson, astonished at the

great variety and beauty of his seedlings, showed them to Mr. Lee, of the Hammersmith Nursery; Mr. Lee instantly saw the advantages to be derived from the culture of the plant, other nurserymen followed his example, and in a few years the heartsease took its place as a florist's flower. The most splendid flowers grown for exhibition are generally hybrids, which possess in a great degree the qualities of both parents.

“Thus, though almost every Heartsease has sprung partly from the wild kind (*Viola tricolor*), its other parent may be traced by its general appearance. The very large dark purple and yellow flowers are descended from *Viola grandiflora*, a species with large yellowish flowers; other large flowers, with dark purple upper petals, and the lower ones of a bluish tinge, are descended from *Viola amæna*; and the offspring of *Viola lutea* are nearly all yellow, strongly marked with very dark branched lines. The hybrids raised partly from *Viola altaica* are of a very pale yellow, and the petals have an undulated margin; those from *Viola Rothomagensis*, or *Viola hispida*, are of a pale blue; and those from *Viola bicolor* are white, slightly veined with purple, and tinged with yellow at the base. In the offspring of continual crossings, some of the characteristics of the parents always remain.”

DESIRABLE PROPERTIES IN A CULTIVATED FLOWER.—
Perfect roundness of the flower, with petals of great breadth, covering each other so as to render the indentation in the margin of the flower, where they intersect, nearly imperceptible. The petals must be thick, flat, having a perfectly smooth margin, without notch or irregularity. Colours dis-

tinct, not even those which are proximate blending in any degree; and of whatever tint the ground of the flower may be, it must be stainless. The two upper petals must be the exact counterpart of each other, whether variegated or self-coloured; and the two side petals also; and the middle one uniform throughout. Whatever marking there is on any of the petals must be regular, decided, and distinct. The eye dark, and the rays dark, regular, and distinct. The entire flower large, the colours intense and rich, and the surface should seem like velvet both to the eye and to the touch.—Altered from the “*Florists’ Annual*.”

PROPAGATION. By SEED.—If you have no plants, and determine to begin by raising them from seed, purchase a packet from some eminent grower, whose reputation will be a sufficient guarantee that you have the choicest sorts. Sow it in March or April if you desire your plants to flower the same year, or the same year’s seed may be sown in August or September, in any spare bed or border. If your seed be obtained from your own plants, reject all but that yielded by your best varieties.

TREATMENT OF SEEDLINGS.—When your seedlings have formed several leaves remove them with great care to a bed composed of a mixture of loam, sand, and rotten dung, previously well drained; when the heat of the weather is very great shade them, and give them plentiful supplies of water.

Sinclair and Freeman recommend that “if a fine seedling should make its appearance, the owner should not wait for any particular season before he begins to propagate it, for fear it should be lost altogether, which, unfortunately, has

too often happened. As soon as the shoots are long enough, he should endeavour to strike a few of them, that he may not risk every thing on a single plant; but as the cuttings cannot in such a case be numerous, they may be planted round the edge of a pot, and covered with a hand-glass. After the first week or two the glass should be taken off occasionally, that the damp may be able to escape, for the young shoots are so full of juice when taken, that there is danger of their rotting if air is not allowed them. After a little while, gradual exposure to the sun will be of service to them."

CUTTINGS.—Propagate your choice and favourite plants by cuttings, which may be done with ease from May to July. They should be about two inches long, and taken from young plants, the lower inch being stripped of its leaves, and cut as close to the joint as possible, all below the joint in cuttings of most plants usually perishing. They must then be placed gently in openings made by means of a skewer, or piece of twig, and the earth pressed closely round them by the fingers. They will root freely in a sandy soil under a hand-glass, or in a shady border. If you use a hand-glass, press it gently on the soil before you put in your cuttings, which will enable you to plant them with greater regularity. When planted, give water freely once, but afterwards supply it sparingly. In about six weeks they will be in a condition to be planted out. If the ground be very dry then, it is desirable to wait for rain before this is done. The soil into which you remove them should be rich and light, and the situation more or less shaded, according to the season; protecting them from too much sun and from cutting winds.

GENERAL TREATMENT.—The Pansy is hardy, and requires little care. The soil best adapted for growing it is loam, enriched with leaf mould and cow manure, or rotten dung. If your garden ground should, fortunately for this purpose, consist of good thick loam, choose an open quarter exposed to the sun, dig the soil a good spit deep, mixing with the earth as you turn it over a quantity of well rotted manure. Having done this, form the bed according to your fancy, and level the earth a little; and then form a trench about the width of your spade, and from eight to nine inches deep; fill it with stable litter thoroughly decomposed, and tread it well down, so as to make a dense layer of some six or seven inches thickness. This completed, return thereon about five inches of the best of the loam, in which your plants must be placed. Experience has satisfactorily ascertained the advantage of putting better soil immediately round the roots, as the plants seem then to commence growing at once; while where this has been neglected, the shock occasioned by their removal so evidently checks them that for a short time no progress is perceptible. It must also be observed, that the plants are much more benefitted by the manure being placed at some little distance from their roots than when they are in contact with it. In the latter case they are stimulated too much, and their vigour and strength is diminished. After having filled your bed, water frequently, carefully avoiding to wet the leaves, unless the ground be cool, which is rarely the case, excepting very early in the morning or late in the evening. Some cultivators say that the Pansy thrives best if so placed that the sun does not shine upon the plants after twelve o'clock, alleging that they ought to be kept cool sixteen hours out of the twenty-four.

WINTER TREATMENT.—Little care is required to keep these plants in winter, save to protect them from cutting winds, which break their stems, and render them liable to rot. The usual plan is to set them in beds, in rows about nine inches apart from row to row ; and the plants in each row about four inches apart from each other ; choosing a sheltered part of a south border for the purpose, and preparing the soil light and sandy, but not particularly rich. To provide against any unforeseen loss in your garden stock, it is desirable, if you have any very choice plants, to pot a few duplicates, and place them in a cold frame in the winter, which, after blooming in the spring, turn out into the open border. It is also recommended that duplicates be potted in the summer, and kept in a cool and shady situation, to repair losses by the dryness of the weather and soil.

TO OBTAIN NEW VARIETIES.—The mode of procuring these is by impregnation, which must be performed when the parent plants are in the highest state of perfection ; and they should also be choice and perfect plants, rich, but diverse in colour, with thick and perfect petals. For particular directions for performing the operation of impregnation, see page 8 of the *Geranium*.

SPRING FLOWERING.—If you desire to have a fine show of Pansies in spring, plant cuttings of choice sorts in the course of August, shading them from heat and wind ; protect them slightly during winter.

AUTUMN FLOWERING.—The cuttings planted in May should yield the finest autumnal show ; they will require considerable care to protect them from the intense heat of the

summer months. There are few plants which suffer more from heat and dryness of the soil.

LARGE FLOWERS.—Young plants invariably produce the largest and finest flowers, but to bring them to perfection, as regards size, you must pinch off the flower-buds as they appear, continually, until you are satisfied with the size and beauty of the flower. In order to keep up the size and character of your flowers, and to maintain young and vigorous plants, you must provide a regular succession of beds; the first arranged to bloom in the spring, a second in the summer, and a third in the fall of the year, carefully observing to select the situation of each bed, that your plants may be most protected from heat and winds when in their prime condition. It is of the greatest importance to keep up this constant succession, because a plant rarely yields more than one good flush of bloom, after which, if left to themselves, they gradually dwindle to an insignificant size.

TRANSPLANTING.—It is a very common practice in removing plants to preserve a ball of the earth whence they are taken round the roots. In some cases this may be desirable, but in others it is often injurious, and especially in herbaceous plants. In transplanting the Pansy from one soil to another, the safest course is to wash all the old earth off the roots; plant it carefully, putting the earth well in among the fibres without bruising them, press the earth closely round the roots, and water freely.

SOIL.—The soil required for the Pansy, if desired to be brought to perfection, as incidentally stated throughout this Treatise, is fresh loam, enriched with rotten manure; those

parties whose collections are so small, that they do not need a great quantity of rotten manure, and have not the convenience of keeping that which is recent until it is decomposed, may obtain it in small quantities from nurserymen.

VERMIN.—Worms, snails, and slugs do much damage to the Pansy. They ought to be carefully looked for; the time to find them most easily is after a shower of rain, or when the dew has fallen in the evening. Of all remedies, individual extermination is the most certain and satisfactory. Slugs may be caught by laying bits of apple or carrot near the roots, or by laying the ashes of wood when just burnt, round the roots of your plants, about an inch in thickness.

LOSS OF VARIETIES.—The Pansy is very liable to lose the character which renders it distinct from other kinds. This is partly no doubt in accordance with a law of nature which observation has taught us, that the offspring of parents of distinct species gradually become in the succession of their progeny more assimilated to one of the parents which were first hybridized than to the other. Other causes than this have been assigned, and doubtless others exist. The following remarks are printed in a work on the Heartsease, published some few years ago under the management of Sinclair and Freeman:—“ We have watched the different varieties of the heartsease for some years past, and have found that many possessing great merits one year were nowhere to be found the following. Many of these have never been propagated beyond the parent plant. Young plants oftentimes make only one shoot. The florist being ever eager to have as many flowers on one plant as possible, suffers the plant to produce flowers until it becomes completely exhausted, and of course dies a

natural death ; whereas, if timely care had been taken, and the florist had had courage enough to pick the remaining flower buds off, after deciding the merits of the new sort, this would encourage the plants to make fresh shoots ; or if the main stem was cut down and made a cutting of, young shoots must spring from the roots. It is a pity that a good sort should be lost through neglect of this means, although not a few have. It is like grasping at the shadow and losing the substance. We need only mention the variety, "Goliah," raised by Mr. Rogers, which for size and magnificence surpassed any sort yet known. But this variety was so difficult to cultivate, although every care was taken of it, that it perished after producing only one flower.

PROCURING SEED FROM PLANTS.—Various methods are adopted by those who propagate the Pansy by seed, and look for new varieties through what may be termed accidental hybridization. Some select the choicest varieties they possess, and plant them in a situation where they receive the influence of the morning sun only, and this in general succeeds ; there are others who think it desirable to plant with the choicer and larger sorts plants bearing an inferior flower, but whose colours may be richer and more intense than the former, in the hope and expectation of enriching the colours of their larger kinds ; but in the latter practice experienced cultivators only preserve the seed matured upon the superior varieties. As the seed is ripening, great watchfulness is necessary to prevent disappointment, for if not collected before it is perfectly matured, it is thrown from the seed vessels and lost. To prevent this a piece of gauze is sometimes tied over the seed pods when half ripe ; if this is not done, the plants should be examined two or

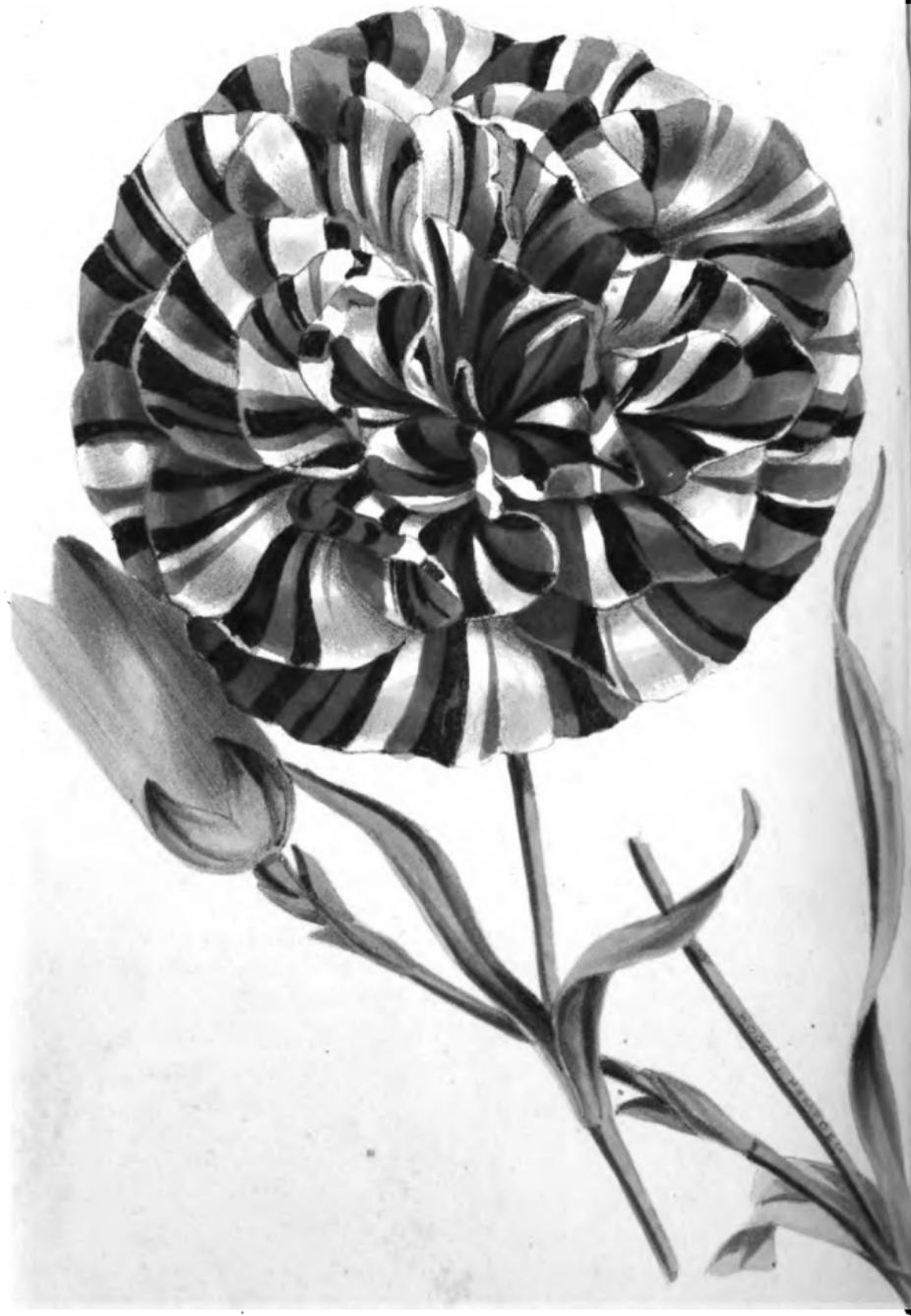
three times a-day, and the pods, if of a brownish yellow hue, may be gathered before they are quite ripe. You may ascertain whether or not the seed is sufficiently matured to secure future germination, by taking hold of the pods and gently pressing them until the valves are opened enough for the colours of the seed to be seen; when, if they are more or less brown, they may be gathered. If they are perfectly white when gathered, there is no chance of their ever germinating.

BERTRAM, THE AMERICAN BOTANIST.—The following singular anecdote shows that the science of Botany is greatly indebted to the Pansy, for having been the accidental cause of Bertram, the first American Botanist, devoting himself to its study. Bertram, who was a farmer, while superintending his servants in the field, and giving them directions, gathered a Pansy that was growing at his feet, and thoughtlessly pulled off its petals one after another. The stamens and pistils of this flower have something grotesque in their appearance when disclosed, resembling, to a fanciful mind, an animal with arms, and a head projecting and stooping forward. Struck with this, Bertram conveyed it home, that he might examine it more carefully. Its examination created in him that thirst for the knowledge of the construction and habits of plants which afterwards rendered him so famous, and won for him the friendship of Linnæus, and all the honours that every scientific society throughout Europe could confer upon him.

A SELECT LIST OF PANSIES.

Ada (<i>Edmonds's</i>).	Capt. Cook (<i>May's</i>).
Adrastia (<i>May's</i>). Upper petals deep bright purple, lower petals edged with same, strong radiated eye, very large size and substance.	Catherine (<i>Ward's</i>).
Admirable (<i>May's</i>).	Cecilia (<i>May's</i>). Upper petals bright purple, strong pencilled eye, great size and substance.
Advocate (<i>May's</i>).	Charles XII. (<i>May's</i>).
Agricola (<i>May's</i>).	Colonel Dundas (<i>May's</i>).
Alba maculata (<i>May's</i>).	Cream (<i>Thomson's</i>).
Alarm (<i>May's</i>). Upper petals bright blue, lower petals edged with same, clear white inside, strong pencilled eye, fine shape.	Curion (<i>Brown's</i>).
Alert (<i>King's</i>).	Defender (<i>May's</i>).
Alice Bean (<i>May's</i>).	Delicate (<i>Thomson's</i>).
Alphonza (<i>May's</i>).	Diana Vernon (<i>May's</i>).
Amato (<i>Ward's</i>).	Dowager Queen (<i>Thomson's</i>)
Amulet (<i>Ward's</i>).	Duchess of Richmond (<i>Thomson's</i>).
Annette (<i>May's</i>). Upper petals bright bluish purple, lower petals edged with same, clear white inside, strong pencilled eye, extra size and substance.	Duke of Cornwall (<i>May's</i>).
Annibal (<i>May's</i>).	Duke of Devonshire (<i>Scholfield's</i>).
Bathonia (<i>Kirtley's</i>).	Duke of Wellington (<i>Thomson's</i>).
Bianca (<i>May's</i>).	Eclipse (<i>Thomson's</i>).
Blue Bonnet (<i>May's</i>).	Edie Ochiltree (<i>May's</i>).
Callum Beg (<i>May's</i>).	Emma (<i>May's</i>).
Cato (<i>May's</i>). Deep bright mulberry upper petals, lower petals edged with same, light inside, deep blotched eye.	Exquisite (<i>King's</i>).
	Franco (<i>May's</i>).
	Giant's Bride (<i>Mellan's</i>).
	Glory of Knosthorpe (<i>Major's</i>).
	Goldsmith (<i>May's</i>).
	Grace Darling (<i>Thomson's</i>).
	Grand Duke (<i>Thomson's</i>).
	Great Western (<i>King's</i>).
	Heroine (<i>May's</i>).
	Iliona (<i>May's</i>).
	Imogene (<i>May's</i>).
	Indian Chief (<i>King's</i>).

Invincible (<i>May's</i>). Upper petals deep purple, clear white strong pencilled eye, large size and substance.	Olympia (<i>Thomson's</i>). Ovid (<i>May's</i>). Paul Pry, or Beauty of Hitchin.
Jenny Jones (<i>May's</i>). Lady Campbell (<i>May's</i>). Lady Glenallen (<i>May's</i>). Launcelot (<i>Stubbs'</i>). Launcelot (<i>Thomson's</i>). Laura superba (<i>May's</i>). Laura (<i>Shepherd's</i>). Lelia (<i>Cook's</i>). Lord Francis Egerton (<i>Ingleby's</i>). Louisa (<i>Ward's</i>). Lovely Ann (<i>Cook's</i>). Lovely Bride (<i>Major's</i>). Majestica (<i>May's</i>). Upper petals deep purple, clear white, large size, extra shape and substance.	Peter Dick (<i>May's</i>). Pluto (<i>May's</i>). Very dark, nearly black, extra fine shape. Prince Albert (<i>Silverlock's</i>). Prince Albert (<i>Holmes's</i>). Prince Albert (<i>Thomson's</i>). Princess Royal (<i>King's</i>). Princess Royal (<i>Pope's</i>). Princess Royal (<i>Thomson's</i>). Queen of the Whites (<i>May's</i>) Queen Superb (<i>Thomson's</i>). Regulator (<i>May's</i>). Rev. John Dix. Rising Sun (<i>King's</i>). Rival Yellow (<i>Stubbs'</i>). River Lea Rival. St. Paul's (<i>Cook's</i>). Sir John Rae Reid (<i>May's</i>). Sir Walter Scott (<i>May's</i>). Sir William Wallace (<i>May's</i>). Sophia (<i>May's</i>). Souter Johnny (<i>May's</i>). Sovereign (<i>King's</i>). Sulphurea elegans (<i>King's</i>). Sylvia (<i>Bridges'</i>). Tom Jones (<i>May's</i>). Triumph (<i>Cook's</i>). Van Amburgh (<i>May's</i>). Victoria splendens. Vivid (<i>Thomson's</i>). Utopian minor (<i>May's</i>). Waverley (<i>May's</i>). Yellow Defiance (<i>May's</i>). Zenobia (<i>May's</i>).
Marchioness of Lothian (<i>Stubbs'</i>). Maria (<i>May's</i>). Marc Antony (<i>May's</i>). Matilda (<i>May's</i>). Miss Molesworth (<i>Bassett's</i>). Miss Stainforth (<i>Thomson's</i>). Miss Webb (<i>Cook's</i>). Mrs. James (<i>James's</i>). Mrs. Long (<i>May's</i>). Mrs. May (<i>May's</i>). Mrs. Ward (<i>May's</i>). Mulberry Perfection (<i>May's</i>) Very bright deep mulberry, yellow inside, fine pencilled eye, size and shape extra.	
Nicol Jarvie (<i>May's</i>).	



Published by R. Evans, Paternoster Row. March 1. 1843.

POPULAR FLOWERS.

THE CARNATION;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED

A LIST OF THE FAVOURITE AND MOST APPROVED KINDS.

WITH A COLOURED FRONTISPICE.

The fairest flowers o' the season
Are our Carnations, and streak'd Gillyflowers.

SHAKESPEARE.

Second Edition.

LONDON:
R. TYAS, 8, PATERNOSTER ROW.

MDCCCXLIII.

Price Sixpence.

CONTENTS.

	PAGE
INTRODUCTORY	25
HISTORY	25
BIZARRES, FLAKES, AND PICCOTEES	27
PROPERTIES OF A FIRST-RATE FLOWER	27
TIME AND MODE OF SOWING	28
TREATMENT OF SEEDLINGS	28
LAYERING	29
DIRECTIONS FOR LAYERING	29
TREATMENT OF ROOTED LAYERS	31
WINTER TREATMENT OF LAYERS	31
SPRING DITTO DITTO	31
TRAINING FOR FLOWERING	32
MANAGEMENT OF FLOWERS	33
DESTRUCTIVE INSECTS	34
MANURED WATER	35
COMPOSTS	35
TO OBTAIN NEW VARIETIES	36
SEED SAVING	36
LIST OF CHOICE SORTS	37

To Correspondents.

“AN ADMIRER OF THE GERANIUM” is informed that a new Edition of the Treatise on that Flower is now ready, and may be obtained by order of every Bookseller.

“A DAHLIA-FANCIER.”—On the 30th of April.

THE CARNATION.

THE Carnation belongs to the Pink (*Dianthus*) family, and on account of its rich and delicious fragrance, closely resembling that of the clove of commerce, it is called the Clove Pink, or *Dianthus Caryophyllus*, the latter being the generic name of the Molucca tree, from which the spice is obtained. *Caryophylleæ* is also the name of that order in the Natural System of Botany, in which the Carnation has been placed. In the Linnæan System it is found in the tenth class, (*Decandria*) and the second order (*Digynia*).

HISTORY. — Chaucer mentions the clove Gillyflower, whence we are led to conclude that it was cultivated here so early as Edward the Third's time;

Ther springen herbes grete and smale,
The licoris and the setewale,
And many a clove gilofre.

and from its frequent introduction into poetry in Elizabeth's reign there can be no doubt that it was then much esteemed. In the Shepherd's calendar, Spenser says

Bring hether the Pincke and Purple Cullambine,
 With Gelliflowres;
 Bring Coronations, and sops in wine,
 Worn of paramours.

Whether the word Coronations be used for Carnations, and whether the flower was worn by lovers to intimate their attachment we have no means of deciding; "sops in wine," has reference, doubtless, to the spice clove which was used for flavouring wine, and to "put in ale," in Chaucer's time, and long before.

Shakspere says

The fairest flowers o' the season
 Are our Carnations, and streak'd Gillyflowers.

The flesh-coloured species has no doubt obtained for it the name of Carnation. Byron has the following beautiful simile

Carnation'd like a sleeping infant's cheek.

The Clove pink has in the "Sentiment of Flowers" been made the emblem of dignity, evidently as a substitute for the Clove tree, the flowers of that tree being worn as a mark of distinction by the inhabitants of the Molucca Islands, where it is indigenous. An anonymous writer describes it as thirsting for additional honour;

The gay Carnation dipped in brightest dyes.
 Who still with thirst of praise and glory burns.

It has continued, from the time of Elizabeth until now, to advance in the estimation of florists, though its popularity

seems to have ebbed and flowed as some new attractive flower has sprung up, and been pushed into notice from time to time, obscuring for a while the old and cherished favourites of the greenhouse and parterre.

BIZARRES, FLAKES, AND PICCOTEEES.—Florists have divided the Carnation into three classes, Bizarres, Flakes, and Piccotees. The Bizarre has a white ground, variously marked by two other colours; these two colours are most commonly purple and pink; while occasionally they are purple and scarlet. The second class has only one colour on a white ground, which is either purple, scarlet, rose or pink. The Piccotee, so named from the French participle *piquettée* “pencilled,” has a white or yellow ground, the edges of the petals being fringed with some shade of red or purple; it is more hardy than the other two. Bizarres are most esteemed, and especially when the colours are rich and regularly arranged.

PROPERTIES OF A FIRST-RATE FLOWER.—Eminent florists require that the stem should be strong, tall, and straight, not less than thirty, nor more than forty-five inches high; the foot-stalks supporting each separate flower should be strong, elastic, and of a proportionate length. The flower should be at least three inches in diameter, consisting of a great number of large, well-formed petals; but neither so many as to give it too full and crowded an appearance, nor so few as to make it appear too thin and empty. The petals should be long, broad, and substantial, particularly those of the lower or outer circle, commonly called the guard leaves; these should rise perpendicularly about half an inch above the calyx, and then turn off gracefully in a

horizontal direction, supporting the interior petals, and altogether forming a convex, and nearly hemispherical, corolla. The interior petals should rather decrease in size, as they approach the centre of the flower, which should be well filled with them. Their edges should be perfectly entire, free from notches, fringe, or indenture. The Piccotee is excepted from this last rule. The calyx should be at least one inch in length, terminating with broad points, sufficiently strong to hold the narrow bases of the petals in a close circular body. The colours must be quite distinct, each petal showing a fair proportion, *i. e.* one half, or nearly so, of ground colour, clear and free from specks.

TIME AND MODE OF SOWING SEED.—Sow your seed about the middle of April in seed pans, or shallow boxes, covering it slightly with finely sifted compost, of rich loam, sandy peat, and rotten manure, mixed; and place them under hand-glasses, or in a cold frame, under glass. Water must be given when necessary, and when the young seedlings are fairly above ground they must be allowed plenty of air; and when they have three pairs of leaves you may plant them out in beds, which are called nursery beds, ten inches apart, where they may remain to flower.

TREATMENT OF SEEDLINGS.—The nursery beds, which must be prepared by deep trenching, enriching the soil by a good dressing of rotten dung and leaf mould, should be raised six inches above the natural level, and made no wider than may be easily covered with hoops and mats when necessary. The young plants must be well watered until they begin to grow again.

However fine a seedling may be, it never arrives at its

best estate until it has been cultivated for some time. Those which are of one colour at first, termed *selfs*, afterwards *break*, as it is called, into various tints, more or less beautiful. On the other hand, some of the old choice favourites lose their variegated character, and retrograde into selfs. These are said to be "run-flowers," and can rarely be restored to their former condition of excellence.

LAYERING.—This mode is chiefly adopted in perpetuating old standard varieties of the Carnation, though many propagate by pipings, which latter plan, to ensure success, requires bottom heat. Layering should be performed annually; for though the parent will live for a number of years, it will never yield blossoms so fine as those in the second year of its existence, for the plain and obvious reason, that the organs of the young plant being more sound and healthy than those of the old one, they perform their functions more vigorously, and moreover as yet it has only one stem to support; while the old plant having many stems, the nourishment it receives is diffused throughout the plant, which may show a greater quantity of flowers, though much diminished in size and freshness of colours.

DIRECTIONS FOR LAYERING.—A Carnation layer, rooted and properly treated in the autumn of one year, will be furnished, in the succeeding summer, with one principal shoot, which comes into flower, and with several lateral branches which will not bloom. These side branches are always selected for layers; and this operation may be performed so soon as they are sufficiently long for that purpose. This happens usually about the time of flowering; sometimes, though rarely, before. Your plants are of course

in large pots, in which there is space sufficient for the addition of compost for the layers to be placed in. The stem of the Carnation is jointed, and observation and experience have taught the florist that roots are most readily formed from these parts of the stem; and not only so, but that they are emitted, by the second joint from the point of the shoot, more freely than from any other.

You will first dispose the fresh compost round the plant whose shoots you intend to layer, and provide yourself with some little hooked sticks and a thin penknife, with which you will cut off the leaves from that part of the shoot which you intend to bury in the soil; having done this, raise the shoot with your left hand, bending it towards the stem of the parent plant, begin cutting at about a quarter of an inch below the second joint, sloping the edge of your penknife inwards and upwards so as to divide the joint and shoot up the middle, and nearly as far as the joint above. The tongue should not be less than an inch in length, and the small portion of stem attached to the tongue, and below the divided joint, must be cut off horizontally just below it.

The part of the layer behind the incision must be pegged firmly down with the hooked sticks, cautiously, because if broken it will not root, the point and leaves being raised nearly upright, so that the tongue may stand quite apart from the corresponding part of the stem. You must keep the layer in this position while you carefully imbed it in the compost. The tongue from whence the new roots will proceed ought not to be covered more than half or three quarters of an inch. It is desirable that the plants which you intend to layer should be well watered the day previous to the operation, and on the following morning exposed to the full rays of the sun for an hour or two; this will strengthen the shoots very much, and tend to ensure success.

TREATMENT OF ROOTED LAYERS.—If circumstances be favourable, the layers will have rooted sufficiently in about seven weeks to warrant their being potted off. Cut them from the parent plant, a little above the incision, and place them, two or three together, in forty-eight sized pots, filled with compost, well shaken down, to within half an inch of the rim, the pots being well and properly drained. When you have finished potting them, give a supply of water, and then remove them to a shady situation. You will, however, so place them, that they may have the benefit of the morning sun, and a free circulation of air. You must also water them regularly, and tend them with care, to prevent worms and slugs from getting into the pots.

WINTER TREATMENT OF LAYERS.—As the winter approaches you must remove your layers from their former situation to a glazed frame ; placing the pots upon, or plunging them into a bed of coal ashes. Here they must be kept shut up from cold rain, frost, and snow ; not, however, even then entirely excluding the air. In mild weather they must always be fully exposed to the air, and to gentle rain at such times. They must never be covered up closely when the plants are damp, or they will be destroyed by mildew ; should that be perceived on any plant, the part must be cut away, as it will spread through a whole collection if neglected. These directions apply also to the winter treatment of mature plants.

SPRING TREATMENT OF LAYERS.—Having kept your plants in the frame until March, you must now, if the season be sufficiently mild, if not delay the operation a little longer, shift them into the pots in which you intend them to flower. The best size is that which is called by potters sixteens.

The compost should be formed of fresh loam, leaf mould, and well rotted stable-dung in equal quantities, to which add one sixth of the whole. This must be well prepared by frequent turnings, mixing the various parts thoroughly together, a month or two before it is required, when it will be in a fit state for the reception of the young plants. It must be observed that Carnations thrive very well in the open border, especially the piccotee; they are, however, less easily defended from their enemies the earwig, slug, and wireworm.

Put plenty of potshreds and gravel into your pots to secure good drainage, covering them with moss, or some similar substance, to prevent the mould from mixing with them, then partly fill them with the compost; turn the young plants out of the small pots with the ball entire, place it in the centre of the larger pot, in which you have already put some of the compost, fill it up round, and rather thinly on the top of the ball. When you have shifted all your plants, water them and set them in some convenient airy place until they are established. Some florists recommend that the quantity of earth in a pot for Carnations, should be double that which is put in for other plants.

TRAINING FOR FLOWERING.—Those who cultivate the Carnation to a considerable extent very commonly use a stage upon which the pots are placed. These stages are either double or single, the latter being formed of three or four shelves one below another like a series of steps, the former, of shelves falling both ways, so that when the plants are placed, they form a ridge.

A slight wooden frame is attached to this, over which canvass is placed so as to form a temporary awning, to shade the plants when in bloom, and to protect them from boisterous

weather. Here they are allowed to have plenty of air, and water is given when necessary. The front and ends of the awning are arranged like curtains so as to be closed or withdrawn at will.

So soon as the flower stems have attained such a height as to be in danger of falling, the plants are placed on the stage and propped. These props are made of deal, square at the base, and tapering to a point at the summit. To the prop the stem is tied as it advances in height.

Rarely more than three flower buds on each stem are permitted to blow ; the rest are removed. Some florists, desirous of obtaining the flower on each plant as large as possible, do not suffer more than one to remain, and in such case they take away not only all other flower buds, but also any side shoots issuing from the stem.

Those who have no stage place their Carnations in the open beds, as pinks are commonly treated, and protect them when needful by temporary coverings formed with hoops and mats ; and shade the flowers with paper caps when in bloom.

MANAGEMENT OF FLOWERS.—So soon as the flower buds begin to open they must be girded, by tying a narrow band of matting round the middle of the pod; which prevents the unequal bursting or expanding of the flower cup and corolla. When the flower bud has arrived at the condition of that in the plate accompanying this treatise, this may be removed ; and carding must be resorted to, to keep the petals of the corolla in a horizontal position. For this purpose take a piece of stiff card-board, cut it into a round form of about three inches diameter, and make a circular hole in the centre large enough to admit the flower bud, imme-

dately behind the petals, without compressing it, but so small as to keep its position when fixed. Cut through the card in one place from the outer margin to the centre circle, to allow of its being fixed upon the bud. On this card the flower is spread out as it expands.

Full blown flowers are often so heavy as to hang down so much that their beauty is not seen unless they are held up by the hand. Florists use small pieces of brass or copper wire to support these in their proper position. The wire is sharp at one end, and bent at the other into the form of a hook, which clasps the stem just below the flower while the sharp end is stuck into the prop. Flowers properly tended and protected usually continue in bloom for about three weeks.

DESTRUCTIVE INSECTS, ETC.—The aphides which attack the Carnation, as well as the Geranium, are destroyed by the fumes of tobacco. The earwig, however, is a more dangerous enemy to this flower, and a very common mode of shielding it from their attacks is to entrap them in small flower-pots or cups partly filled with hay sprinkled with sugared water, placed on the top of the prop in an inverted position. Writing-paper made into the form of a sugar-paper will serve as effectually. Paxton recommends that a large saucer or feeder should be filled with water, and a brick placed in the water, on which the pot must be set dry; neither earwig, snail, or slug will venture to cross the water. The wire-worm is very destructive, it sometimes infests the roots, and will eat up the pith of the stem when running into flower. When their presence is detected they must be entrapped by slices of apple or potatoe laid about the pot, when they may easily be caught and destroyed; in potting

your plants a little quick lime mixed with the soil will help to destroy the wire-worm.

MANURED WATER.—If the foliage of their plants are paler than is considered consistent with a healthy condition florists use manured water, that is, water in which sheep, pigeon, or poultry manure has been steeped; watering the plants occasionally with this restores their healthy green colour; and about the time the stems commence growing, the florist mulches the surface of the pots with dung thoroughly decayed, which keeps the roots cool; and by watering through it the plants are much invigorated, and the blooms strengthened.

COMPOSTS.—As different florists use and recommend different composts, we select several, that our readers may use that which they prefer, or have greater facilities for obtaining.

Muscroft.—Fresh earth, rotten cow dung, river sand, or wood earth, in equal proportions, thoroughly mixed; after mixing let it lie in a heap for a few months, and two or three weeks before it is wanted, sprinkle a little quick lime amongst it, and riddle it; great diligence should be used during this operation in looking for and destroying the wire-worm.

Hirst.—Six barrow loads of strong loam, three of three years old manure, and two of river sand, mixed about six months before it is required for use; and frequently turning it during the interim.

Maddock.—One half rotten horse dung, one year old, or once used for a cucumber bed, one third fresh sound loam, one sixth course river sand, mix these in autumn; lay in a heap two feet thick, in an exposed place, and turn them three or four times in winter. In country places where the air is

more pure than in towns, use two thirds of the quantity of dung.

May.—Three fifths of old decomposed leaf soil, one fifth of coarse pit sand approaching to grit, one-fifth of road scrapings from a limestone road: the whole frequently turned, exposed, and well mixed; hand picking all worms, wire worms and the like from it.

MODE OF OBTAINING NEW VARIETIES.—These are occasionally obtained from seed; and to ensure success when they are sought for by this course, the greatest care is necessary in the choice of breeders, and in placing the plants in close contact with each other when in flower. The same amount of care is also required in the selection of plants for breeders, when the mode of artificial cross impregnation is adopted, which must be performed as directed for the Geranium. And in both modes the parent plants must be well attended to, if you desire to have well ripened seed, by giving due and regular supplies of water, affording them a free circulation of air, and by protecting them from inclement weather.

SEED-SAVING.—Those seed-vessels which are fruitful, swell much more rapidly than those which are barren; and when you perceive that some swell more quickly than the rest, you must divest the former of their faded petals; cut off the points of the calyx, or flower-cup which are bent backwards with a pair of scissors; and open the sutures downwards, that the seed-vessel may swell more freely. In ordinary seasons you will find the seed ripen in September; when it becomes nearly black you may gather it, let it remain in the capsules, or seed-vessels in a dry place till Christmas, when you may rub it out and put it in paper.

SELECT LIST OF CARNATIONS AND PICCOTEEES.

Carnations.

SCARLET BIZARRES.

Groom's Mars	Handy's Regent
Davey's Royal Sovereign	Snock's Solomon
Tomlinson's Augusta	Sharp's Defiance
Weltjie's Goliah	Harley's Waterloo
Gordon's Burdett	Hogg's Hampden

PINK AND PURPLE BIZARRES.

Walker's Rockingham	Lacy's Wellington
Buck's Lord Paget	Weltjie's King George
Hine's Duchess of York	Davey's Duchess of Devonshire
Ward's Elizabeth	
Wood's Lord Collingwood	Smith's Fair Helen

SCARLET FLAKES.

Holden's Britannia	Harley's Matilda
Weltjie's Ranger	Chaplin's Abercrombie
Hall's Duchess of Kent	Lacey's Salamanca
Asten's Hero	Meacham's Invincible
Clegg's George IV	Page's Queen

PURPLE FLAKES.

Meacham's Maria	Bruin's Mariana
Dixon's Jane	Palmer's Defiance
Kenny's Excellent	Wood's Ambassador
Oddy's Henry Hunt	Cornfield's Mrs. Robinson
Fulbrook's Grenadier	Turner's Princess Charlotte

PINK AND ROSE FLAKES.

Pearson's Moira	Hoyle's Beauty
Dixon's Fame	Rivier's Incomparable
Harley's Mrs. Clarke	Maddock's Maria
Pyke's Lady Hamilton	Hardman's Wellington
Tate's Jubilee	Duchess of Devonshire

Picotees.**PURPLE EDGED.**

Butcher's Fair Ellen	Annesley's Lord Hill
Baldwin's Queen	Cartwright's Lord Eldon
Cleopatra	Box's Lady Graves
Hogg's Queen Victoria	Hardy's Brutus
Lady Wilton	Willmer's Queen

RED EDGED.

Annesley's Achilles	Tyso's Tiara
Hogg's Clarissa	—- Hector
— Ensign	Hall's Magnificent
Cornfield's Queen	Sharp's Criterion
— Adelaide	— Paganini
Martin's Black Prince	Wood's Andromache
— Prince George	Sharp's Wellington

ROSE EDGED.

Hurst's Adelaide	Wood's Maid of the Mill
— Lady Clare	Youel's Anacreon
Wood's Penelope	— Sophia

SCARLET EDGED.

Hogg's Phyllis	Burrow's Annette
— Lady Godolphin	Wood's Ophelia
Martin's Vesuvius	Waine's Queen Victoria.



POPULAR FLOWERS.

THE FUCHSIA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED

A SELECT LIST OF CHOICE PLANTS.

WITH A COLOURED FRONTISPICE.

Thou graceful flower, on graceful stem,
Of Flora's gifts a fav'rite gem !
From tropic fields thou cam'st to cheer
The natives of a climate drear,
And, grateful for our fostering care,
Hast learnt the wintry blast to bear.

ANON.

LONDON:

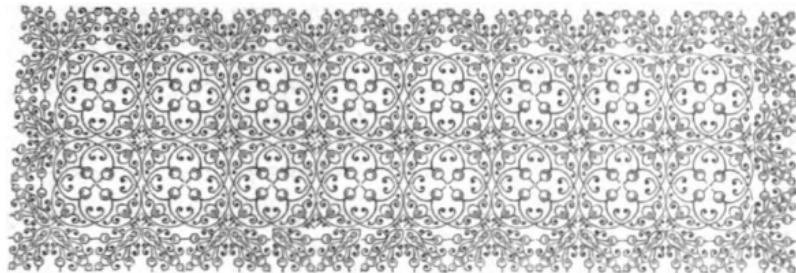
R. TYAS, 8, PATERNOSTER ROW.

M D C C C X L I I I.

Price Sixpence.

CONTENTS.

THE FUCHSIA	37
FUCHSIA COCCINEA, F. FULGENS	38
F. CORYMBIFLORA, AND F. SPLENDENS	39
PROPAGATION :	
BY SEED	41
BY LAYERS	ib.
BY CUTTINGS	ib.
DIRECTIONS FOR TREATING CUTTINGS	ib.
FUCHSIAS IN THE OPEN GROUND	43
WINTER TREATMENT OF DITTO	ib.
FUCHSIAS IN POTS	44
DITTO DITTO TO BLOOM IN AUTUMN	45
PRESERVATION OF THE FUCHSIA IN WINTER	ib.
SPRING TREATMENT	46
SUITABLE SOIL	47
WATERING	ib.
HYBRIDIZING	ib.
INSECTS	48
CHOICE SORTS	49



THE FUCHSIA.

Thou graceful flower, on graceful stem,
Of Flora's gifts a fav'rite gem !
From tropic fields thou cainst to cheer
The natives of a climate drear ;
And, grateful for our fostering care,
Hast learnt the wintry blast to bear.

ANON.



HIS beautiful plant has not been known in England much more than fifty years. All the species at present cultivated in this country are natives of South America, from whence we received the first, *Fuchsia coccinea*, in 1788. We shall give a short description of some of the most distinct species and remarkable varieties ; premising that this plant has been named *Fuchsia* in honour of Leonard Fuchs, a German botanist of high repute, and an author in the middle of the sixteenth century. It is placed by botanists in the Natural Order *Onagraceæ*, and in the eighth class (*Octandria*), and first order (*Monogynia*), of the Linnæan System.

The light and graceful appearance of the Fuchsia renders

it desirable in the flower garden as a mere shrub ; but when ornamented with its pendant flowers of richest crimson dye, tinged with purple or pale green, and sometimes shading into a delicate cream colour, with its cluster of golden stamens and pistil it seems to us one of the most elegant and tasteful of all the wonted inhabitants of the parterre. To the lover of flowers who delights to cultivate that which he admires when in its prime beauty, the *Fuchsia* possesses other qualities which enhance its value—its free growth, the ease with which it is propagated, and its general hardiness. When first the *Fuchsia coccinea* was imported in 1788, it was presented to the Royal Gardens at Kew, where for some time it was treated as a stove plant ; but being removed to the green-house it bore the change well ; and at length was transferred to the open ground, which it was not only sufficiently hardy to bear, but flourished with even greater luxuriance than when treated as a house plant. It now lives through the winter in gardens where it is sheltered by surrounding walls or buildings, and every year seems to increase in strength and beauty.

Fuchsia fulgens is a beautiful species, and was originally brought into this country by a foreigner on speculation, when it fell into the possession of Mr. Lee, of Hammersmith. It is thought to be in all probability the most beautiful plant of the temperate Flora of Mexico. Its flowers are of a rich vermillion colour, and in a sheltered situation it blooms freely in the open border, but requires care and protection during winter. It should be potted in a compost of equal parts of light loam and thoroughly decomposed cow's dung, adding leaf mould and sand, of each a quantity equal to one-fourth of the loam and dung, putting ample drainage in the pots. It should then be put near the

glass in a green or dwelling-house, where the heat in the morning averages from 50° to 55° . A free circulation of air must be allowed, water must be amply supplied morning and evening, and the plants must be shifted when the roots have made the sides of the pot; they may be planted out in the open border when all fear of frost is past.

Fuchsia corymbiflora was raised by Mr. Standish, of Bagshot, who says that the best way to grow this beautiful species is to prepare a bed in the flower garden, with light rich soil, and in May turn the plants into it, when they will soon become handsome shrubs, and each will speedily form a mass of roots. When showing flower they may be taken up and potted, and after being kept in a close place for a few days they may be taken to the greenhouse or conservatory without being affected by their removal. If you wish to have small flowering plants, take cuttings when in a flowering state, put them in thumb pots, and plant them under bell glasses; they will strike root readily, and by shifting them into larger sized pots they will perfect fine racemes of flowers. Dr. Lindley observes that this species casts all other Fuchsias into the shade. Ruiz and Pavon, in the *Flora Peruviana*, describe this magnificent plant as growing to the height of a man, completely laden with flowers, produced in the same manner as those of *F. fulgens* but far exceeding them in elegance of shape and brilliancy of colour. The tube of the flower is a clear bright rose colour, the tips turned back very much, and the petals thus disclosed are of a rich and brilliant carmine.

Fuchsia splendens.—*F. Fulgens* is a fine plant, but we regard this as being still more beautiful, because of the scarlet and pale green colours with which it is adorned. In habit it much resembles it, and, in fact, was supposed at one

time to be the same species ; but it evidently differs in many important circumstances. It will probably be the hardiest of its race, for it was found by Mr. Hartweg on Totonte-peque mountain, 10,000 feet above the sea, or little more than 5,500 feet lower than the summit of Mont Blanc. This species should neither be cultivated in very rich soil nor in a large pot, for both these circumstances have a tendency to prevent its flowering freely. It will grow well enough in any free soil, and flowers abundantly in the early part of the season. Plants are easily raised from cuttings of the young shoots, when planted in sand and treated in the usual way. It is not sufficiently hardy to stand a severe winter out of doors about London.

Fuchsia, var. *Brown's Prince Albert*.—This new variety has been declared by a well qualified judge to be beyond comparison the finest yet introduced. Its foliage is full and of a dark green ; its habit of growth is strong and short jointed, it produces blossoms in lavish abundance, from the axil of every leaf and from the extremity of every shoot, thus precluding any extensive propagation of the variety ; the combination of colours in the flower is extremely pleasing ; the size of each individual flower is very great, being upwards of two inches and a quarter from one sepal to the tip of the opposite one, and having all these qualities it is considercd to stand so pre-eminent over every other variety as to merit the honourable name which has been assigned to it.

Fuchsia macrostemon, var. *recurvata*, is considered by Sir W. J. Hooker to be of all Fuchsias the most handsome ; whether its graceful habit of growth, its size, or the form of its flowers, be regarded.

PROPAGATION—SEED.—The seed may be sown about the end of February, and indeed from that time until June, in pans filled with light earth of any kind ; after sowing, place the pans on a shelf near the glass in a greenhouse, or in a moderate hot bed frame

LAYERS.—When the lateral branches have become a good length, some of them may be layered by making an incision on the upper side, and treating them in the manner recommended for Carnations. Layers thus treated will root quickly, and will form fine plants for flowering late in Autumn in pots.

CUTTINGS.—Fuchsia cuttings will strike well at any time from April to the end of June. They may be planted in pots half filled with soil, which should be plunged in a warm situation, placing over the pot a piece of flat glass for the purpose of excluding the air ; or you may set the pot in the window of your dwelling-room ; it will be necessary to wipe the moisture off the glass occasionally, or to turn the glass frequently during damp weather.

TREATMENT OF CUTTINGS GENERALLY.—By an ascertained law of nature, when a shoot is cut away from a plant and deprived of the nourishment it received in common with all the other branches, it will, if placed in a favourable situation, throw out roots in search of food. Experience has taught gardeners the best mode of availing themselves of this law, in propagating plants which cannot be so well propagated by seed, and, indeed, in some cases in which the latter mode invariably fails. It may be received as a general rule, that the points of the side branches form roots most

readily ; they also grow more bushy, and come into flower sooner than any other. If the plant which it is desired to propagate be very attenuated in its growth, the cuttings need not be more than an inch, or an inch and a half long. The lower part of a shoot is usually brownish, the point being still green ; to form a cutting, a portion of the brown is taken, which constitutes its base.

Procure pots of the size called thirty-twos, which are the best adapted for striking cuttings, and a quantity of potshreds, with a compost of light maiden loam and turf Heath-mould or peat, well mixed but not sifted, and a supply of pure white sand. Prepare your pots to receive the cuttings by forming a good drainage of potshreds, gravel, or cinders ; next lumps of turf, and then finer compost to within an inch and a half of the rim ; above all, to form the surface, one inch of sand. If these materials are loose and dry, water them to render the whole compact.

You must also procure striking glasses, which should fit just *within* the rim of the pot ; they are manufactured of different sizes for the purpose.

When all these things are ready, gather and prepare your cuttings. So near as you can get them, let them be of one size and age ; put them together in the same pot, that they may receive the same treatment. Whatever may be the length of your cuttings, strip off the leaves one-third of its length, at the base, leaving the rest entire. Cut the bottom transversely, immediately below a bud, without fracture or abrasion of the bark. When thus prepared dibble your cuttings into the sand, being careful not to crowd them, and give them a watering to settle the sand. On the moisture being evaporated from the cuttings and surface of the pot, put on the glass, and press it closely down to exclude the air. When finished, a section

of the pot and its contents would appear like the annexed engraving. Sand is found to be the best medium for inducing the formation of roots, absorbing any moisture flowing from the wounded cutting, which otherwise often would become



corrupt and rot the cutting. The use of the bell glass is to afford subdued light, while at the same time it defends the rootless shoot from the changes of the atmosphere.

FUCHSIAS IN THE OPEN GROUND.—It is desirable that Fuchsias should be kept in a bed by themselves, rather than they should be planted among other shrubs, not only because the effect is greater when seen in masses, but their necessary winter treatment is more easily managed by such an arrangement. They should be planted in a rich soil as elsewhere directed, and in a warm and sheltered situation.

WINTER TREATMENT IN THE OPEN GROUND.—Those kinds which are most hardy will do well throughout a mild winter without any protection ; less hardy sorts require to be cut round when their branches are killed back by the frost, and a little litter laid round them, or you may cover the soil about the roots with decayed leaves or old tan six inches

thick, and tie up together the branches of each plant as closely as you can without injuring them. Then cover each shrub separately with a thatching of straw or dry fern leaves, compactly bound round it in the form of a cone, by which shape the thatching will be less pervious to rain, and the shrub better protected from snow and wet. If this covering be firmly secured, the plants will not only live through the winter, but they will not lose a single shoot.

FUCHSIAS IN POTS.—The following is an abridgement of a communication to the Floricultural Magazine, by Mr. Moore, of the Regent's Park. Early in spring take cuttings from the points of young shoots in a growing state, strike them quickly in a gentle hotbed; when rooted, pot them singly in small pots, in a compost of rich sandy loam. Place them in a cool close frame, attend them carefully till they begin to grow; then air must be admitted abundantly when it can be done without hurting the plants. While here keep them close to the glass, taking great care that the points of the shoots are not injured, as on their preservation depends the beauty of the plants. Shift as the roots become numerous, using a pot a size larger on each shifting, and pay strict attention to drainage. Support the leading shoot by a neat stake, placed perpendicularly, and admit sufficient air to keep them bushy, and still place them as near the glass as possible. When too large for the frames, remove them to the Greenhouse, where they must be similarly treated; they must not be crowded. On and after their removal they will require more moisture, and liquid manure may be cautiously and sparingly used. In watering pour it close round the sides of the pots and not near the stem, which is often injurious, or

plunge the pot in water and allow it to absorb it for a few minutes and then drain the pot well. The compost recommended is three parts sandy loam, enriched by one part well rotted manure.

These plants having bloomed in pots one season, will be well adapted for planting out in the flower garden in the succeeding one. If however you desire to continue them in pots a second year you must reduce, and plant them in smaller pots in autumn, pruning them back, the leading shoots to about six inches, and the laterals to two; and in spring repot them as above directed.

PLANTS DESIRED TO BLOOM IN AUTUMN.—If you desire to have Fuchsias in full bloom in the Autumn, for your window, plant a few out early in June in the open border; or you may pot them at once in the pots in which you intend them to bloom, and plunge them out of doors, providing them with good drainage. So treated they will make fine specimens for your purpose. Great precaution will be necessary in the latter plan, to prevent the plants from rooting through the bottoms, or over the tops of the pots.

PRESERVATION OF THE FUCHSIA IN WINTER.—Some florists dig up their Fuchsias in November, shake off the soil from the roots, and lay them together in a dry cellar, where, covering their roots with sand, they leave them until the early part of the following April, when few if any are lost.

Mr. Mearns, of the Botanic Garden at Leeds, has communicated his plan of preserving them to the *Gardener's Chronicle*, the substance of which we give here:—The cheapest way to preserve Fuchsias through the winter, if you

have many, is to bury them. At the approach of frost I shook mine out of the soil, and cut away all the laterals, as I would trim a riding cane; on those intended for training to a wall &c., I left from three to six canes, some five or six feet long. Having thus prepared them, I dug a pit in the centre of my heath soil (any other dry soil or sand will do) about three feet deep, six feet long, and as wide as was necessary to hold my plants. I placed them in the pit in a sloping direction, driving stakes here and there diagonally over them, to support the soil which I covered them with, and to protect the canes from pressure. I scattered a little straw into the pit among the plants, and piled the soil thrown over them into a sharp ridge.

SPRING TREATMENT.—Fuchsias, growing in boxes, which cannot be readily shifted, may have the surface soil removed, and fresh added. Those which have been covered as previously directed for protection through the winter, may have their coverings removed in May, or, if placed in the cellar for protection, they may be planted out in the same month.

Fuchsias buried according to Mr. Mearns' directions, previously given, should be taken out of the pit about the end of April, when they will be found to be breaking strongly, probably having formed long shoots, with vigorous roots, in all directions. These shoots will soon shrink on exposure to the light and atmosphere; but, on being potted, and placed in a large pit, they will be soon excited. Those which were trimmed for training should be planted out in the beginning of May, when most kinds will be found to grow vigorously; they should be examined from time to time, and towards the end of June the young shoots should

be thinned, that the remainder may grow more strongly. They will be found to be equally advanced in growth with those transferred to the border from the frame or greenhouse.

Those which are to be potted should previously have their roots well trimmed in, so that they may be easily put in six and seven inch pots, keeping the roots near to the side of the pots; they thrive best in comparatively small pots, till ready to be planted out into beds, when the weather has become favourable.

SUITABLE SOIL.—The fittest soil for Fuchsias is a rich fresh loam, with only a little sand, to which should be added, if the former be not of a naturally nutritive quality, leaf mould and dung, thoroughly decomposed, in small quantities.

WATERING.—Too much attention cannot be paid to the Fuchsia in this respect in warm weather. In the heat of summer they require to be watered two or three times a day. When the roots are allowed to become dry, the blossoms flag sooner than those of any other plant; and though they appear to regain their vigour when water is applied, they will fall off within a few hours afterwards. The most watchful care only can prevent this. When the sun has great power they should be supplied with water liberally two or three times during the day; watering from the spout of a pot held close down to the soil. Syringing is recommended, if done towards evening.

HYBRIDIZATION.—Several hybrids of great beauty have been procured by the cross impregnation of *F. fulgens*, *F. globosa*, *F. conica*, and *F. gracilis*; and varieties of considerable value are expected to be increased by the introduction of *F.*

cordata and *F. corymbiflora*, these two being well adapted for intermixture with the kinds previously cultivated. When you have selected the plants which you intend should produce the hybrid seed, remove the anthers before they burst, with a pair of scissors, leaving the stigma, to which you must afterwards apply the pollen you have gathered from another flower, which is to form the hybrid, with a camel's hair brush ; then tie a bit of thread round the flower-stalk, that the seed pod may be saved.

INSECTS.—The Fuchsia is sometimes infested with the green fly, when such is the case dip your plants in a pan of tobacco water as directed for Geraniums.



A SELECT LIST OF FUCHSIAS.

Affinis	Fulgens Multiflora
Arborea (Smith's)	— Superba
Aurantia	Grandis
Atkinsonia	Grandiflora
Blanda	Globosa Major
Buistii	— Elegans
Bicolor	— Rosea Elegans
Brockmanii	— Variegata
Chandlerii	Grandis
Cordifolia	Grandiflora Maxima
Cooperii	Glabra Multiflora
Corymbiflora	Groomii
Curtisii	Hiperfolia
Conspicua (Smith's)	Insignis (Smith's)
— Arborea	Ilicifolia
Carnea	Inflata Fulgida
Compacta	Invincible
Cordata Superba	Integrifolia
Craigiana	Incomparabilis
Dalstonii	Longifolia Superba
Dicksonii	Lanei
Delicata	Moneypenii
Eximia	Magnifica
Excelsa	— (Thyne's)
Elegans Superba	— (Smith's)
Erecta tricolor	Mirabilis
Formosa Elegans	Multiflora
Fulgens	Prince Albert
— Globosa	Principes
Floribunda	Pendula Splendens

<i>Pyramidalis</i>	<i>Stylæa Conspicua</i>
<i>Prostrata</i>	<i>St. Clare</i> —Flowers 3 inches in length, with the tube and sepals of a bright carmine colour, and the petals of a rosy purple.
<i>Pistulum Alba</i>	
<i>Pendula Terminalis</i>	
<i>Ricartonia</i>	
<i>Reflexa</i>	
<i>Racemosa</i>	<i>Toddiana</i>
<i>Reflex Grandiflora</i>	<i>Transparens</i> —Outer corolla a delicate pink, boldly tipped with bright green; inner corolla bright rosy carmine.
<i>Rosea Alba</i> —Pure white, beautifully tipped with rose.	
<i>Radicans</i>	<i>Thyneana</i>
<i>Racemiflora Elegans</i>	<i>Tricolor</i>
<i>Rogersiana</i>	<i>Usherii</i>
<i>Stewartii</i>	<i>Venus Victrix</i>
<i>Sanguinea</i>	<i>Variabilis</i>
<i>Splendens</i> (Salter's)	<i>Vernalis</i>
<i>Stylosa Maxima</i>	<i>Wormaldi</i>
<i>Standishii</i>	<i>Youellii</i>
<i>Splendens</i>	
<i>Surpass Standishii</i>	



Digitized by Google

Published by R. Tyas, Paternoster Row, May 1, 1843.

POPULAR FLOWERS.

THE DAHLIA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED,

A DESCRIPTIVE LIST OF SELECT VARIETIES.

WITH A COLOURED FRONTISPICE.

SECOND EDITION.

LONDON :

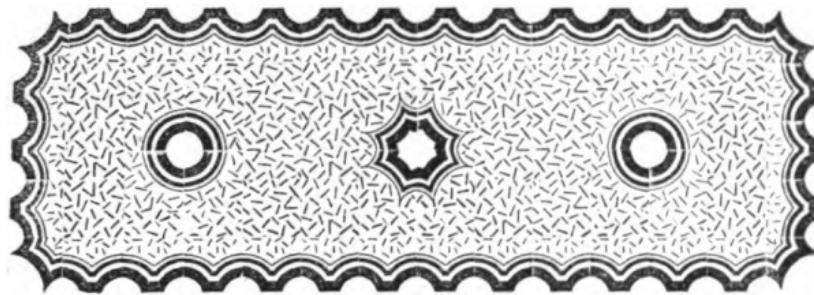
R. TYAS, 8, PATERNOSTER ROW.

M D C C C X L I I I .

Price Sixpence.

CONTENTS.

	PAGE
HISTORICAL INTRODUCTION	49
PROPAGATION :—	
BY SEED, AND TREATMENT OF FLOWERS	50
BY SLIPS	51
PROPAGATION OF CHOICE DAHLIAS	ib.
TREATMENT OF SLIPS	53
SITUATION AND PREPARATION OF THE SOIL	ib.
SPRING TREATMENT	54
PERIOD FOR PLANTING OUT	ib.
PLANTING OUT.	55
MULCHING AND WATERING	56
TREATMENT WHEN FLOWERING	ib.
STRIPED VARIETIES	57
AUTUMNAL AND WINTER TREATMENT	ib.
SEED GATHERING	58
REQUISITES OF A PERFECT FLOWER.	ib.
INSECTS	59



THE DAHLIA.

INTRODUCTION.

“ Though sever'd from its native clime,
Where skies are ever bright and clear,
And nature's face is all sublime,
And beauty clothes the fragrant air,
The Dahlia will each glory wear,
With tints as bright, and leaves as green.”
As on its open plains are seen.
And when the harvest fields are bare,
She in the sun's autumnal “ ray,
With blossoms decks the brow of day.”

MARTIN.



BOUT ten years before the close of the last century, this favourite flower was sent from Mexico to Spain, and a few specimens were procured, in the year of its importation to that country, from Madrid, by the then Lady Bute, but through some mismanagement the species was lost, until Lady Holland obtained seed from the same city in 1804; while in 1802, another species, *Dahlia coccinea*, had been brought from Mexico through France; neither the latter, nor the former, *Dahlia fristranea*, seem however to have attracted much attention among the floricultural world; and it was not until after the peace of 1815,

F

that it became an object of the professed florist's care, when a supply was obtained from France, where its cultivation had already been carried to some extent; since which period an indefinite number of varieties has been procured by the persevering ingenuity of the florist, and a monomania for this flower existed for many years unsurpassed in invertebracy, save by the extraordinary Tulipomania of the seventeenth century. This has in some degree subsided, and the Dahlia is taking its proper rank as a deservedly esteemed flower, blooming at a season of the year when the number of flowering plants in the open garden is very limited.

The name of Dahlia was given to it in honour of Dahl a Swedish botanist and a pupil of Linnæus; there was an attempt to change it to Georgina, and on the continent this has prevailed to a considerable extent, but in England it has been entirely rejected. It is a member of the large Natural Order Compositæ, and of the nineteenth class (*Syngenesia*), and second order (*Superflua*), in the Linnæan system.

PROPAGATION.—SEED.—The propagation of the Dahlia by seed is now seldom practised, except by those who desire to obtain new varieties by hybridizing between two distinct species or choice varieties. The proper time for sowing the seed is in March, in light soil in shallow boxes or pans, which are placed in a moderate hot-bed to promote their germination; though some florists think that plants as vigorous if not more so may be obtained from seed sown in a warm and well sheltered border towards the end of April, or in the early part of May, provided the young plants are protected during the night and guarded from casual frosts; or the seed may be sown in pans in March in the house, and put out in the open air on mild days, to accustom them to

the external atmosphere. In any treatment when the seed leaves are fully developed, they must be allowed plenty of fresh air, or placed in a cold frame, taking care that they are put as near as possible to the glass, to prevent their being drawn and growing lanky; they may also be potted singly, or three or four together, so soon as they will bear handling. When they have four leaves, they may be treated in every respect as old plants, and from the twentieth of May, to the middle of June they may be planted where it is intended they should flower.

SLIPS.—This is the mode most commonly adopted for the propagation of this favourite plant, and the operation is begun in March, by removing the tubers from the place where they have been deposited during the winter, and putting them in pots, or in loose earth on a mild hot-bed. The crown of each tuber is left uncovered to permit each shoot to develop itself, under the full influence of the atmospheric air. When the shoots have attained the length of about three inches, they are cautiously separated from the tuber by laying hold of the slip with the thumb and finger near its base, and gently moving it backwards and forwards until it comes out of its socket. Mr. Paxton recommends that where the shoots are numerous, a part of the crown of the tuber should be invariably taken off with the shoot, a course more likely to be attended with success than by extracting the slip.

PROPAGATION OF CHOICE DAHLIAS.—The following mode of increasing choice varieties of this favourite flower was discovered by Mr. Blake, of Kensington Gore, and is now commonly practised.

"Select a good tuber of a single sort, taking special care that it has no eyes; then with a sharp knife (for a dull edge would mangle the fleshy root, make it jagged, and so prevent a complete adhesion of the scion and stock) cut off a slice from the upper part of the root, making at the bottom of the part so cut a ledge wherein to rest the graft. This is done, because you cannot tongue the graft as you would do a wood shoot; and the ledge is useful in keeping the cutting fixed in its place while you tie it. Next cut the scion (which should be strong, short jointed, having on it two or more joints or buds), sloping to fit, and cut it so that a joint may be at the bottom of it to rest on the aforesaid ledge; a union may be effected without the ledge, provided the graft can be well fixed to the tuber, but the work will not then be so neat. It is of advantage, though not absolutely necessary, that a joint should be at the end of the scion, for the scion will occasionally put forth new roots from the lower joint; the stem is formed from the upper joint, therefore procure the cuttings with the lower joints as near together as possible. After the graft has been tied, a piece of fine clay, such as is used for common grafting, must be placed round it: then pot the root in fine mould in a pot of such a size as will bury the graft half way in the mould: place the pot in a little heat in the front of a cucumber or melon frame, if you chance to have one in work at the time; the front is to be preferred, for the greater convenience of shading and watering which are required. A striking glass may be put over the graft, or not, at pleasure. In about three weeks the root should be shifted into a large pot, if it be too soon to plant it in the border, which will probably be the case, as the plant cannot go out till the end of May, so that the shifting will be very essential

to promote its growth till the proper season of planting out shall arrive."

TREATMENT OF SLIPS.—The shoots having been carefully separated from their parent tuber, they are immediately placed in thumb pots, filled with light soil, not inserting each more than an inch deep; when this is done the pots are plunged in the hotbed. When they have filled these small pots with roots, they are shifted into sixties, which may serve them until the time for planting, unless that be protracted by unfavourable weather; in which contingency it will be desirable to remove them again into a size larger, to allow the roots to grow more freely, and to prevent their becoming a close and compact mass, which would be highly detrimental to their vigorous development, and the future health of the plant, when consigned to the open ground. Numerous shoots are emitted from the same tuber in succession, and these are treated in precisely the same manner when arrived at the proper length. They must be shaded from the sun while making roots, and protected from steam and frost. The best compost for the Dahlia in pots is a mixture of sifted decayed hot bed dung, light maiden loam, and pure white sand, in equal quantities.

SITUATION AND PREPARATION OF THE SOIL.—The natural habitat of the Dahlia is, we are informed, in a rather light soil and on open plains; English cultivators recommend a sheltered situation, that is sheltered from high winds, which break and shatter their lateral branches, however much they may be strengthened and supported by stakes; yet fully exposed to the sun, and where they can have the advantage of a free circulation of air, the soil naturally damp, rich, of good

depth, and on a dry bottom. The soil however is rarely so good that it cannot be improved for the purpose for which it is desired, and it is recommended that those who would grow the Dahlia to perfection should trench the ground in November or December, previous to its being required, by first removing the soil to the depth of twelve inches, and replacing it with equal portions of good yellow loam and peat earth; and then trenching it again to the depth of two feet, mixing the original sub-soil and the loam and peat thoroughly together, with a large quantity of stable manure, thoroughly decayed or it will be injurious. This may seem an expensive process, but once done it will need no further preparation for many years, except the occasional addition of manure.

N.B.—In a strong clay soil, enriched with well decayed manure, the Dahlia produces the largest *flowers*; in a light soil, the *plant* grows to a great size, but the flowers are comparatively small.

SPRING TREATMENT.—Those who have no hotbed wherein to start their Dahlias into a growing state may do so with equal success, and may obtain even more vigorous and better blooming plants than those which are excited by artificial heat, by planting them towards the end of April in a box of light soil or decayed leaves, keeping it in a moist state, and exposing them to the full heat of the sun throughout the day and taking them in doors at night. When the shoots are three or four inches long they may all, except one, be taken off close to the tuber, and treated as slips; but if you can divide the tuber into as many pieces as there are shoots, it is to be preferred.

PERIOD FOR PLANTING OUT.—There are few situations

where Dahlia plants can be planted out with safety before the end of May, or the early part of June. When the operation is performed the plants if on beds by themselves, which is desirable, should be set in rows not less than six feet apart each way. Due regard must be had to the respective heights of the plants and the colours of their flowers; if on a bed where they are to be viewed from all sides, the tallest growing kinds should be placed in the centre; if to be seen only from the front, the loftiest must be set at the back; and, in reference to colours, so arranged that they will produce an harmonious effect as a mass. Your plants if well grown will be from eighteen inches to twenty four in height, when planted, and should be supported by stakes immediately; when they are full two feet high, the top of the leading shoots, or upright stem should be cut off to induce the plant to throw out laterals.

PLANTING OUT.—It is a very common error to keep the Dahlia in pots too small for the quantity of roots the plant has formed, and the evil consequences of this are increased in seasons when it is most desirable they should be avoided: for if the weather be so unfavourable as to put off the period of planting out, the roots have been meanwhile increasing, and filling up the pot, so that when the plant is taken out to be set in the open ground, the ball of earth cannot be removed without breaking some of the fibres, and, fearful of doing this, many persons plant them without disturbing it, and the result generally is, that the plant does not begin to grow vigorously until near the time when it ought to be in flower; it is better, indeed, to break some of the fibres, and get away the dried and baked earth from around the roots, for though it seems to give a violent check to the growth of

the plant it will, when it has recovered, thrive far better than those planted with the ball entire ; it is however preferable to avoid the necessity for the latter plan, or the alternative of breaking the roots, by planting them in pots of a larger size than that commonly used. The crown of the tuber should be placed at least three inches below the surface of the soil in planting out.

MULCHING AND WATERING.—When the plants are two feet high, remove the earth from around the base of the stems to the depth of three or four inches ; supplying its place with well decomposed manure, which must be slightly covered with earth ; in dry weather, the plants must be watered through this mulching twice a week at least, or every other day according to the state of the weather, and this should be done in the evening. The Dahlia is greatly benefitted by this system of mulching and watering, for unlike many other kinds of plants, it seeks its nourishment chiefly from the surface of the soil ; and its roots will be found, in favourable circumstances, to be clustered together near it. Throughout the summer it is also advantageous to the plants to have the earth around the roots carefully loosened by the use of a fork from time to time.

TREATMENT WHEN FLOWERING.—When the buds of your Dahlias begin to appear, you must take them off until you think the plants have attained their full vigour, and then permit only every third bud to grow to maturity ; by doing this, it is true, you will not have so numerous a show of flowers, but those which you have, will attain the highest state of perfection your plants are capable of ; taking into account their situation and previous treatment, and, what is

of paramount importance, the character of the season. In the treatment of flowers grown for exhibition at Flower Shows, it is a common practice to bind down the disk of the flower towards the earth, by which it is said, the flowers are rendered more perfect in form, and richer in colour. When in flower the bloom should be shaded from the sun, during the hottest parts of the day.

STRIPED VARIETIES.—The striped kinds have a tendency to “run” as it is termed, into self coloured flowers, if not carefully treated, and almost invariably do so when planted in rich soil; the best mode of keeping them “clean,” that is, in their prime estate as striped flowers, is to plant them in poor soil.

AUTUMNAL AND WINTER TREATMENT.—It is the practice with many persons to take up their Dahlia roots so soon as the shrubs are cut down by the frost; this is not desirable, because if the tubers are taken up before their vital powers are in a quiescent state, they are more easily injured by the dryness of the atmosphere into which they are to be removed, and which it is necessary they should be able to bear without shrivelling, as in a moist atmosphere they are apt to become mildewed and mouldy; therefore it is best about the end of September to cover the stems and some distance round with earth and littery dung, about six inches thick, so as to protect the crown of the tuber from injury by the early frosts; and allow them to remain in the ground till about the middle of November, when they must be taken up and spread singly in a dry open shed for a few days, not allowing the sun to shine upon them, and turned occasionally during this period, so that they may be dried gradually; as if dried too

quickly, they shrivel, or too slowly, they become rotten. When sufficiently dry clear away the earth from them, and place them in a dry under-ground cellar, where the frost is not likely to reach them; and these should be examined throughout the winter from time to time, and if there be the least symptom of damp upon the tubers, they should be carefully wiped with a dry cloth, and receive almost daily attention. Should you not have the convenience of such a cellar, you must store them in a pit in the garden, which must be prepared in a dry spot, and be of sufficient capacity to hold all your tubers. Having dug the pit, cover the bottom with dry ashes, then pile the roots thereon, tier upon tier, so as to form a ridge, then cover them with plenty of straw, and form a ridge of earth over them of the thickness of twelve or fourteen inches.

SEED GATHERING.—The seed should be collected in September from dwarf plants, where no preference exists on other accounts, and, when double varieties are principally sought for, from semi-double flowers. Seeds procured from those florets which have changed their form are supposed to have a greater tendency than the other to produce plants with double flowers.

REQUISITES OF A PERFECT FLOWER.—The following characteristics are agreed upon by the Floricultural Society as necessary to the perfection of the Dahlia:—

1st. The general form should be that of about two-thirds of a sphere or globe. The rows of petals forming this globe should describe unbroken circles, lying over each other with evenness and regularity, and gradually diminishing until they approach the top. The petals comprising each succeeding

row should be spirally arranged and alternate, like the scales of the fir cone, thereby concealing the joints and making the circle more complete.

2nd. The petals should be broad at the ends, perfectly free from notch or indentation of any kind, firm in substance, and smooth in texture. They should be bold and free, and gently cup, but never curl or quill, or show the under sides ; they should be of uniform size, and evenly expanded in each row, being largest in the outer rows, and gradually and proportionately diminishing until they approach the summit, when they should gently turn the reverse way, pointing towards and forming a neat and close centre.

3rd. The colour in itself should be dense and clear ; if in an edged flower, concentrated and well defined ; and in both cases penetrating through the petal with an appearance of substance and solidity.

4th. Size must be comparative.

INSECTS.—The earwig is an inveterate enemy of the Dahlia, and will destroy the whole bloom if not guarded against. The preventive service must be commenced immediately the plants are staked. The best and the most simple plan is to half fill a small garden pot with hay, and place it on the top of the stake in an inverted position ; examine your pots every morning, and shake the insects from among the hay into a deep pan, previously greased round the top to prevent their escape, and when all the pots have been carefully searched, the insects must then be destroyed ; this must be continued until the frost destroys them.

The Dahlia is also subject to be attacked by the wire worm and the only plan at present known of preventing their destruction by this insect is to place within their reach something

more tempting to their palate than the Dahlia ; for this purpose some place cuttings of currants and lettuce stalks near the plants, and when they find them filled with the worm destroy them ; others plant lettuces round each Dahlia, and when they droop, they are taken up and the worms destroyed and fresh plants set in their places ; it is said that neither they nor slugs will touch the Dahlia when they can get lettuces.

The shoots of young plants are often destroyed in Spring by a species of fly, which may be effectually exterminated by examining the plants from time to time, and syringing them, and while they are wet, dusting a quantity of black sulphur into the hearts.



A DESCRIPTIVE LIST OF CHOICE DAHLIAS.

Admiral Stopford, very dark, form unrivalled, 4 ft.	Beauty of the Vale, fine scarlet, 4 ft.
Ansell's Unique, light yellow, tipped with crimson.	Countess of Cork, clear white, edged with violet, 4 to 5 ft.
Aurantia Speciosissima, orange, large, 5 ft.	Cormack's Duchess of Bucleugh, white, edged with bright pink, 3 ft.
Bates' Rubia Superba, fine red, 4 to 5 ft.	Countess of Liverpool scarlet, with cupped petals, 6 to 7 ft.
Attila (Whale), mottled rose, 4 ft.	Competitor (Hodge), shaded rose, 4 ft.
Bragg's Antagonist, pure white, of the finest form, and very constant, 4 to 5 ft.	Duchess of Kent, scarlet 4 to 5 ft.
Beauty of Sussex, (Mitchell) delicate pink, deeply edged with cherry, novel, good, and constant, 4 ft.	Douglas' Augusta, shaded purple 5 to 6 ft.
Blanche Shelly (Mitchell), white, tipped with purple, good form and constant, 5 ft.	Essex Triumph (Turville), the nearest approach to black, with a fine gloss on the Petals, unrivalled form, 4 to 5 ft.
Bianca (Wildman), pure white, with first rate properties, 4 to 5 ft.	Eclipse (Catleugh), vermillion scarlet, fine, 4 to 5 ft.
Bedford Surprise (Sheppard), dark puce, shaded with crimson, fine form, 4 ft.	Favourite (Dodd), pure white, edged with pink, 4 ft.
Bridesmaid (Brown), white and lavender, 2 to 3 ft.	Grand Tournament (Union), peach blossom, 4 to 5 ft.
Burnham Hero, dark crimson, fine form, 3 to 4 ft.	Grand Tournament (Catleugh) dark scarlet, 4 ft.
Brewer's Beauty of Cambridge, white, tipped with bright violet, 3 to 5 ft.	Harris' Acme of Perfection, white, edged with crimson, 3 to 4 ft.
Brewer's Rival King, clear white, edged with rosy crimson, 2 to 3 ft.	Harris' Lady Lascelles, white, edged with lilac, 2 to 3 ft.
Beauty of Camberwell, lilac, rosy, 4 to 5 ft.	Hero of Stonehenge (Whale), dark mulberry, with a good depth, fine formed and well arranged petals, 3 to 4 ft.
Bartlett's Princess Victoria, pink edged with rose red, 3 to 4 ft.	Horace (Mountjoy), dark plum, good, 4 to 5 ft.
Beauty of Camden, fine ruby red, 4 to 5 ft.	Indispensable (Girling), violet purple, 4 to 5 ft.
Brewer's Rose d'Amour, rosy red 5 ft.	Lady Glentworth (Widnall), mottled rose, noble flower, 4 ft.
Brown's Colossus, dark crimson, 5 to 6 ft.	Lady Ann Murray (Catleugh), mottled rose, good shape and habit, 4 ft.
	Lewick's Belle Forme, dark maroon red, 4 to 5 ft.

Lady Harland (Jeffery), lilac, 4 ft.
 Lady of the Lake, white, edged with purple, 5 ft.
 Lady Grenville, pink, 3 to 4 ft.
 Majestic (Widnall), shaded rose, fine form, 4 to 5 ft.
 Marchioness of Exeter (Widnall), peach blossom, 2 to 3 ft.
 Miracle (Miellez), blood red, finest form, 3 ft.
 Miss Abbot, bright lilac, fine form, 4 ft.
 Mrs. Shelly (Mitchell), dark rose, shaded with lilac, fine show flower, 4 ft.
 Northern Beauty (Robinson), white, tipped with cherry, fine noble flower, 5 ft.
 Novelty (Whale), ruby, tipped and striped with buff, of good form, and constant, 2 to 3 ft.
 North Midland (Evans), dark crimson, favourably spoken of by Dr. Lindley, 4 ft.
 Paul's Clio, primrose, tipped with purple, 4 to 5 ft.
 Pieta formosissima, orange, striped with scarlet.
 Perpetual Grand (Brown), bright crimson, fine form, and constant, 5 ft.
 Phoenix (Headley), bright scarlet, fine form, 4 ft.
 Prince of Wales (Girling) bright purple, shaded with crimson, fine form, and constant, 4 ft.
 Prince of Wales (Dodd), bright yellow, large, fine, and constant, 2 to 3 ft.
 Princess Royal (Hudson), sulphur, tipped with pink, finest form, 4 ft.
 Prince Albert (Adams), chesnut brown, a large noble flower, 4 ft.
 Queen of Dahlias, white, edged with rose lilac, 3 to 4 ft.
 Queen of Lilacs (Appleby), best lilac, 5 ft.
 Queen of Trumps (Brown), white and purple, 3 to 4 ft.
 Rose Unique (Ansell), bright rose, 4 ft.
 Sir F. Johnson (Hillier), dark puce, 3 to 4 ft.
 Sir R. Sale (Smith), crimson purple, a first class flower, 4 ft.
 Sultana (Appleby), dark maroon, sometimes shaded with light purple, in either case the colours are *bright and striking*, the petals are finely cupped with a clean edge, of good substance, and well arranged, forming a flower of perfect symmetry, and of noble size, 4 ft.
 Surprise (Oakley), red, finely tipped with white, of good form, and is the best fancy tipped Dahlia ever offered to the public, 4 to 5 ft.
 Sir William Ingleby's fine maroon red, 3 to 4 ft.
 Springfield Rival, dark, rosy crimson, fine form, 5 to 6 ft.
 Twyford Perfection, crimson, with beautiful clean cupped petals, 4 ft.
 Virgil (Mountjoy), dark maroon, of the finest form, and very constant—the second best of the season, 5 ft.
 Westbury Rival (Hall), dark crimson, 3 ft.
 Welbeck Rose (Tillery), dark rose, good form, 3 ft.
 Wells's Polyphemus, dark purple 3 to 4 ft.



Published by R. Tyas, Paternoster Row, June 1, 1843.

POPULAR FLOWERS.

T H E R O S E;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT

IN ALL SEASONS.

TO WHICH IS ADDED,

A SELECT LIST OF FAVOURITE VARIETIES.

WITH A COLOURED FRONTISPICE.

SECOND EDITION

LONDON :

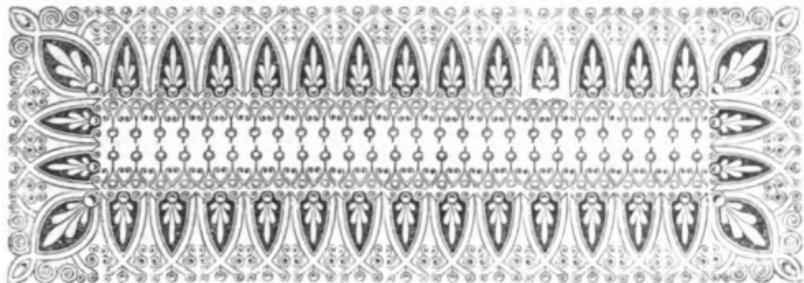
R. TYAS, 8, PATERNOSTER ROW.

M D C C C X L I I I .

Price Sixpence.

CONTENTS.

	PAGE
INTRODUCTION	61
SPECIES AND VARIETIES OF THE ROSE	62
PROPAGATION :	
SEED	64
CUTTINGS	ib.
LAYERS	ib.
SUCKERS	65
BUDDING	ib.
TRANSPLANTING	67
PRUNING	ib.
FORCING	ib.
RETARDING FLOWERING	68
ROSES IN POTS	69
STANDARDS FOR ROSES	70
CABBAGE, FRENCH, AND MOSS ROSES	ib.
ROSA INDICA, VAR. FABRIER	71
ROSA INDICA, VAR. ODORATA BLANDA	ib.
INSECTS	72
SELECT LIST OF ROSES	73



THE ROSE.

Rose! thou art the sweetest flower
That ever drank the amber shower;
Rose! thou art the fondest child
Of dimpled spring, the wood nymph wild!

MOORM'S ANACREON.



O speak of the Rose, is to summon up reminiscences of the first in rank and beauty in the vegetable kingdom, the emblem of the graces and of beauty; it is to speak of the sweetest and most perfect of Flora's train, and to revive the most agreeable and pleasing sensations: and we are not therefore surprised that all who have the least perception of the beauties of Nature should be its admirers, that it should have been cultivated in the remotest period of antiquity, and that art and industry have been exercised to multiply its varieties to the utmost extent. An immense volume would be insufficient to recount only that which is curious in the history of the Queen of Flowers; and our space compels us to condense as much as possible what we have to say respecting its culture and general treatment; fortunately

they do not present much difficulty. All the species and varieties may be cultivated in pots. Nearly all European species love a rich and fertile soil, neither too dry nor yet too humid. All the Indian and Persian species require peat earth when grown on their own roots; but, grafted on the wild briar rose, the former soil suffices.

SPECIES AND VARIETIES OF THE ROSE.—Botanists have divided the Rose into eleven classes; we shall give a concise account of the more important members of these. The sixth class comprises the greater part of the double Roses, which are cultivated on account of their prime beauty. It is divided into several sections, which are again subdivided, chiefly with reference to the colour of their flowers. At the head of the first section stands the Cabbage Rose, which exceeds all other Roses in the beauty of its form and colour, and the sweetness of its odour.

No flower that blows
Is like this Rose,
Or scatters such perfume.

Its chief variety is *R. muscosa*, of which our frontispiece presents a faithful portrait; its flowers are of a vivid red colour; there are sub-varieties of this with white flowers, and all of them are rendered remarkable, and distinguished from every other kind of Rose by the species of moss with which their calices are covered. A German poet has thus accounted for this mossy ornament:

“ The angel of the flowers, one day,
Beneath a Rose tree sleeping lay,
That spirit—to whose charge is given,
To bathe young buds in dews from heaven—
Awaking from his light repose,
The angel whisper’d to the Rose:

' O fondest object of my care,
 Still fairest found where all are fair.
 For the sweet shade thou'st giv'n to me,
 Ask what thou wilt 'tis granted thee.'
 ' Then,' said the Rose, with deepen'd glow
 ' On me another grace bestow.'
 The spirit paused in silent thought,
 What grace was there that flower had not?
 ' Twas but a moment—o'er the Rose
 A veil of moss the spirit throws,
 And robed in nature's simplest weed;
 Could there a flower that Rose exceed ?"

In the second section of this class we find the Damask Rose, a very great favourite; and the *Rose des quatre Saisons*, or Perpetual Rose, which is now a very fashionable flower; it must be planted in a situation where it is sheltered from the winds. Next follows the Provence Rose, a species rich in varieties, ranged by florists according to their colours. In the seventh class is *R. turbinata*, a semi-double flower, of a deep red colour, and the white Rose, *R. alba*, with its varieties. In the eighth class we find *R. eglanteria*, or eglantine Rose, a great favourite with the poets, though not famous for its flowers. The fragrant properties of its leaves, however, more than compensates for its lack of floral beauty, and the "Sweet Briar" is one of the most agreeable plants to those whose olfactory organs are of any use. The ninth class contains *R. Indica*, more fully described in another page; also the Tea scented Rose, well known, and much esteemed for its beauty and agreeable odour. It is necessary to bud or graft this variety in order to preserve it in this country. The Bourbon Rose included in this class is new, perfectly white. The Noisettes, a new Rose, of which there are already more than twenty varieties, flower nearly throughout the year; their flowers are small, but numerous. The Bengal Rose, *R. semperflorens*, or ever-flowering Rose, has a great

number of varieties. The Banksian Roses form the eleventh class. Their stems are vine-like, growing to a great height, bearing small white flowers, and emitting the fragrance of the violet.

PROPAGATION.—The Rose is propagated by seeds, by cuttings, by layers, by suckers, and by budding.

SEEDS.—This mode is adopted for the purpose of raising new varieties by crossing different kinds, and is almost exclusively practised by professional florists; it is also used for obtaining sweet briars and stocks. When it is gathered in the autumn it is either rubbed or washed out of the hips and kept in dry sand, or the hips are laid in a cool room, and turned from time to time, till the shell is rotted, and the seed is sown in the succeeding spring, when it will come up the same year.

CUTTINGS.—When the earliest shoots of the China Rose are about four inches long, cut them off close to the old wood, plant them in pots half filled with soil and plunge them in a warm situation, placing over the pot a flat piece of glass to exclude the air; the glass should be wiped occasionally; thus treated they will make blooming plants by Autumn. Indian and climbing kinds are also easily propagated by cuttings and slips, protecting them as above, or by a hand glass.

LAYERS.—With a sharp knife cut right into the shoot, and pass the knife up the middle of the shoot through two or three eyes, until you have a slit three or four inches in length. Having done this, twist the shoot slightly so as

to loosen the bark, and then bury it, pegging it down in a soil best suited to the growth of the parent, first placing a pebble in the slit, to prevent it from closing. Layering should be practised when the parent shrub is in its prime vigour, that is when it is first showing for flower. The propagation by layers and suckers is generally adopted for the Moss, and Provence, or Cabbage Rose. These are also propagated by the cuttings of the large fleshy roots, which, being planted, and covered with a little light, rich earth, will each throw up one or more shoots. This will be found a good and easy method of obtaining young plants.

SUCKERS.—This is a more certain mode than layering. The best time for separating them from the parent is in the autumn, about the middle of October. The plan is to dig down to the roots, where the sucker starts from the parent shrub, and then separate it by the hand; if it appears that no root fibres will readily come away with it, a knife must be used to take some of the root along with it, selecting from that which runs away from the main plant. It is thought however that plants thus raised do not bloom so well as those produced by layering.

BUDDING.—This mode is usually adopted to multiply and produce the more curious species and varieties of the Rose, and is as Cowper has somewhere beautifully observed a

—bud inserted in the rind,
The bud of Peach or Rose.

The most suitable time for performing this operation is in August, and the common process is pictorially represented in the accompanying engraving.



1.

2.

3.

No. 1, shews the bud detached from the shoot; 2, the opening made first by an incision in the form of a T by a knife, and then the bark folded back from the wood by a thin piece of ivory, so as to receive the bud; 3, shews the stock (see *standards*) and the bud inserted in its place, in which it is tightly bound by a string of matting from the bottom to the top, leaving the point of the bud free. Thus

— — — We marry
 A gentle scion to the wildest stock
 And make conceive a bark of baser kind
 By bud of nobler race: this is art
 Which does mend nature,—change it rather; but
 The art itself is nature.

SHAKSPEARE.

Budding is very much practised for the purpose of producing several kinds of flowers on one plant, as well as to preserve the more tender kinds, which languish when grown on their own roots; some cultivators even assert, that all Roses flower finer, and last longer, when budded on the stock of the wild Rose.

TRANSPLANTING.—All Rose cultivators are agreed that periodical transplantation of this shrub is required to keep it in vigorous condition ; as it is alleged that the peculiar nourishment it extracts from the soil in which it is planted becomes gradually exhausted ; and a change is rendered necessary to stimulate it to throw out a fresh quantity of small fibres which are supposed to be the most active collectors of food for the plant ; the best growers recommend and practice a removal once in three years, and the most suitable time is from the middle of October, (which is the best) throughout the winter, and even so late as March, though done at the latter period, success is not so certain. They are sometimes transplanted in March, with a view to having the shrubs in flower late in the Autumn.

PRUNING.—China Roses and those of a robust habit of growth must be pruned in February. It is not necessary to shorten strong varieties much ; except for the purpose of inducing them to produce new wood for the following season.

TRAINING.—Roses intended to cover the sides of walls, must be trained in January, the branches upright, and at regular distances.

To FORCE ROSES.—Select in February or March, from old Rose-stools, a quantity of young suckers, and cut them back to two or three eyes. Plant these in lines 12 inches apart, and 4 inches in the line ; in which operation make a trench a foot deep, into which put three inches of old hot-bed manure ; then plant the suckers and fill up the trench with the original soil. By the following September they will have become strong plants with a quantity of young

fibrous roots, when they should be taken up and potted in twelves and eighteens, in a compost of loam, leaf mould, old hot-bed dung, and sand, in equal quantities. In potting leave room for a layer of rotten dung at the top, which must be closely pressed down with the hand. This done, cut the plants back to two eyes, and arrange the pots in beds, putting leaves between and over them; the plants which have been forced the year before should now be repotted and treated in the same way. About the middle of November remove some of them to a small house previously erected for them, with a pit in the centre filled with leaves, into which plunge the pots, and do the same monthly from November to March. Keep the temperature in the house at about 65° , syringe the plants night and morning until they show flower buds; when they must be looked over and only the strongest bud on each flower-stalk be left to grow to maturity; cut off the rest. This is a most important point in forcing roses. These means will secure a succession of flowering plants from the middle of January; and the best kinds for the purpose are the Royal and Moss Provence.—*Smith.*

RETARDING FLOWERING.—The most simple method of retarding the flowering of the Provence and Moss Roses, so as to have the plants in bloom late in the autumn, is to cut off the tops of the shoots produced in the spring, just before they begin to shew their flower buds; the effect of this treatment will be to cause the plants to throw out fresh shoots, which will bloom later according to the period when the operation is performed. It may also be done by transplanting the bushes early in the spring, just when they have formed their buds, which should be cut off. The roots must

not be allowed to dry before they are put into the earth again ; and they will require artificial watering to make them produce flowers in October and November.

ROSES IN POTS.—All Roses grown on their own roots, Bourbon, China, Tea-scented, Hybrid, Perpetual and Noisettes, and others obtained from the nursery ground in October, or during the winter months, if intended to be planted in the borders in the spring (they are very liable to be killed by the winter, if planted out in Autumn) should be carefully cleared from the moss and mould, or the surface of the pots should be stirred; and then plunged in sawdust or old tan in a pit or garden frame. The glass should never be put over them except in severe frost. At the end of April they may be planted out with safety.

If intended to bloom in the greenhouse or for forcing, they should be taken from their pots, the balls of earth loosened and considerably reduced, and re-potted in a size larger than the pots in which they are received ; light sandy loam and well rotted dung or leaf mould in equal quantities is the best compost ; if previously grown in peat, the same should be used again, or the roots should be cleared entirely of the peat, before planting in the compost, as the fibres do not strike readily into loam from the peat ; then place in an airy greenhouse, near the glass. Water them abundantly after being potted a few days ; they should be syringed in sunny weather twice a day, morning and evening, with soft water. If to be forced, they must be removed to the forcing house early in January ; keeping a gentle heat from 50° to 60° in cloudy weather ; admitting very little air, with great caution, during the sunshine as spring advances. Syringe twice a day ; this gives health and vigour

to the plants and keeps off the red spider which takes up its residence under the leaves.

Roses received in pots in April and May and during the summer months, in a growing state, should be placed in a cold frame; and if sunny weather, shaded a few days, syringing them occasionally, or watering from a fine rosed pot. Keep them close the first three days, then admit air gradually, taking the lights off at night if still weather and the nights are dewy. In eight or ten days they may be planted out without risk.—*T. Rivers, Jun.* The Chinese and other tender kinds are well adapted for decorating the greenhouse nearly throughout the year.

STANDARDS FOR ROSES.—The best stocks for standards are the common Dog Roses which should be obtained where the soil in which they grow is rich; the best time to procure them is from October forward to January, when you should get as many as you are likely to want and plant them in some spare corner of your garden; those of two years' growth are considered most suited to the operation; and they should be well supplied with roots.

CABBAGE, FRENCH, AND MOSS ROSES.—These should be planted in a rich soil, of a loamy character, but not heavy; Moss Roses prefer a cool soil with one exception, viz. *Mossy de Meaux* and it delights in a rather light soil. The white moss rose growing on its own roots has a tendency to change into blush; to prevent this, and indeed to insure its growing well, it is usually budded on stocks of the wild dog rose. Every sort of these Roses is well adapted for budding for standards; and to have them in perfection in warm situations, Rivers recommends that the fourth of a barrowful of manure

be placed on the surface of the soil round the roots of each in March. This is unsightly, but by covering it with moss or flint stones it may be rendered ornamental. By this treatment the soil is kept cool, and the flowers will bloom in a superior manner even where the situation was thought most uncongenial. In the following November let the manure be spread over the surface, and lightly forked in. At the end of February all these sorts should be carefully pruned back, leaving sufficient branches to form a flowering head during the summer, and cutting the other back to two or three eyes that they may form young wood for flowering the following year.

ROSA INDICA, var. FABRIER.—This beautiful Rose is said to be without a rival in the deep toned colour of its purplish scarlet flower; and is equally deserving of notice on account of the duration of its blooming season. It begins to flower about the end of June, and continues to yield a succession of buds until the frost stops its career. The habit of this variety is such as imparts to the Rose family a more than ordinary value and interest. It is quite hardy; has strong upright shoots; stiff flower stalks, curving slightly only when the rose is fully blown. The flowers succeed each other in sufficient numbers only, not weakening the plant by their profusion, a highly desirable quality when a constant succession of flowers is required. The foliage is rather thin, though large, compact and firm and of a shiny texture.

ROSA INDICA, var. ODORATA BLANDA.—This variety is of a habit somewhat resembling the preceding, and equally excellent and desirable. The flower is larger, of a rich de-

licate flesh colour, defying language or the powers of art to convey any adequate idea of its beauty. Both these are by many persons considered preferable to standard roses as ornaments on lawns. They should be planted in very rich earth, and trained to tall tapering, flexible stalks, six to twelve feet in height. The following Noisettes are also desirable for this purpose,—*Grandiflore Belle, Forme Dah-lingen, Cerise, Cadot, Conque de Venus.*—*Marnock.*

INSECTS.—The most numerous enemy to the Rose is the *aphis*, and the mode of destroying this insect has been so fully described in our Treatise on the *Geranium*, and our space is so limited here, that we must refer them to that.

There is a very subtle enemy to which *Shakspeare* alludes, “a worm i’ the bud,” the produce of the saw fly. This fly pierces the bud, and thrusts an egg into the orifice, which soon becomes a caterpillar, and derives its nourishment from the heart of the young flower. When it has consumed the bud, it spins a thread by which it lets itself down to the ground, enfolds itself in a silken wreath, and is shortly transformed into a chrysalis, and from that state into a fly, when it commences the same work of devastation.

Examine your Rose shrubs carefully in April, and if the leaves of the advancing buds appear curled, search for a small grub whose presence is thus indicated, and destroy it or it will destroy the bloom.

There are several other insects which attack the Rose tree; many of them may be destroyed by fumigating with tobacco or sulphur, but careful examination and hand picking are also constantly needed.

A SELECT LIST OF ROSES,
FROM THE
CATALOGUE OF THOSE EMINENT ROSE GROWERS,
RIVERS & SON, SAWBRIDGEWORTH.

AUSTRIAN BRIARS.

Copper
Double Yellow

AYRSHIRE ROSES.

Blush
Jessica
Ruga
Splendens

BANKSIAN ROSES.

White
Yellow

BOURBON ROSES.

Armosa
Dubourg
La Tendresse
Madame Desprez
Psyche
Victorie Argentée

BOURSAULT ROSES.

Blush
Gracilis

CHINA ROSES.

Amiral Duperri
Beau Carmin
Caméléon
Camellia Blanc
Grandiflora
Henry V.
Napoleon
Sulphurea Superba

DAMASK ROSES.

Arlinde
Lady Fitzgerald
Ma Favorite

EVERGREEN ROSES.

Adelaide D'Orleans
Donna Maria
Felicité Perpétue
Princesse Louise

FRENCH ROSES.

Aglae Adanson
Belle de Fontenay
Duc de Trevisé
Fanny Parissot
Leopold
Picotée
Porcelaine Royale
Village Maid

HYBRID CHINA ROSES.

Bonne Géneviève
Beauty of Billiard
Bremens
Coupe d'Amour
Duke of Devonshire
Fulgens
George the Fourth
King of Roses
Las Casas
Lady Stuart
Ne-plus-ultra
Triumph d'Angers

HYBRID CLIMBING ROSES.

Indica Major
Madame D'Arblay
The Garland
Rosa Elegans

HYBRID PROVENCE ROSES.

Amelie Guerin
Duchesse d'Angoulême

Enchantresse

L'Ingénue

Reine des Belges

MACARTNEY ROSES.

Double Blush

Maria Leonida

MINIATURE ROSES.

Caprice des Dames

Nigra

Pallida

Retour du Printemps

MOSS ROSES.

Crimson

Crested

Pompone

Scarlet

Single Crimson

White

MUSK ROSES.

Fringed

Princesse de Nassau

NOISETTE ROSES.

Ariel

Boulogne

Camellia Rose

Clarissa Harlowe

Hardy

Jaune Desprez

Luxembourg

Nankin

PERPETUAL ROSES.

Bernard

Couronne de Beranger

Crimson

Flon

Grand.

Josephine Antoinette

Perpétuelle d'Angers

Prudhomme

Royal

Stanwell

PROVENCE ROSES.

Duchesne

Dutch

Illustre Beauté

Unique Striped

Wellington

ROSA ALBA.

Blanche Superbe

Blush Hip

Duc de Luxembourg

Félicité

La Séduisante

Madame Campan

ROSA MICROPHYLLA.

Carnea

Coccinea

Purpurea

ROSA MULTIFLORA.

Crivellii

Elegans

Hybrida

SCOTCH ROSES

Guy Mannering

Lady Baillie

Queen Mary

True Yellow

Venus

SWEET BRIARS.

Celestial

Rose Angle

Scarlet

TEA SCENTED ROSES.

Caroline

Coccinea

General Valagé

Madame Guerin

Princesse Marie

Taglioni

Yellow



Published by R. Tyas, Paternoster Row, Aug. 1, 1843.
Digitized by Google

POPULAR FLOWERS.

THE CAMELLIA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED,

A SELECT LIST OF FAVOURITE VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON:
R. TYAS, 8, PATERNOSTER ROW.

MDCCXLIII.

Price Sixpence.

CONTENTS.

	PAGE.
INTRODUCTION	73
PROPAGATION :—	
GRAFTING	74
BUDDING	75
INARCHING	ib.
STOCKS FOR GRAFTING	76
SOIL	77
POTTING	ib.
GENERAL TREATMENT	79
HENDERSON'S TREATMENT	ib.
OBSERVATIONS BY SWEET	81
CAMELLIA HOUSES	82
BLOOMING	ib.
CAMELLIAS IN ROOMS	83
WATERING	ib.
WINTER PRESERVATION	ib.
DISEASE	84
INSECTS	ib.
LIST OF VARIETIES	85



THE CAMELLIA.

INTRODUCTION.

 HIS beautiful exotic excites our admiration at every period of the year. When in flower we gaze upon its compact and chiseled form with delight; the white varieties standing in relief against their dark polished green leaves seem as though they were cut in alabaster or moulded in wax; while their brilliancy is rendered the more apparent by the subdued contrast of the coloured varieties. When they have ceased to flower the rich verdant foliage is not less agreeable to look upon.

It may interest many to know that the Camellia is a species of that genus in which we find the trees yielding the favourite afternoon beverage amongst Englishmen, *C. Bohea* and *viridis*, chiefly furnishing the immense supplies of tea yearly imported from China.

The species more particularly under our notice is,

however, a native of Japan, and is very commonly called the Japan rose; by botanists *Camellia Japonica*; and now pretty generally, simply "the Camellia." In its native regions it becomes a lofty tree, and is greatly admired for its fine form and its shining deep green foliage, ornamented with its elegant flowers, single or double, and in colour red or white. It is esteemed as much by the Chinese as the Japanese, and equally cultivated by both. We often find it grouped with the Chrysanthemum and Hibiscus in Chinese paintings. In China there has been raised many varieties of the *Camellia Japonica*, and most of these have been imported into Great Britain, where they are being annually increased. In the Natural system it forms a distinct Order, bearing its own name *Camellieæ*, and in the Linnæan classification is placed in the sixteenth class, (Monadelphia), and the seventh order, (Polyandria).

PROPAGATION.—The propagation of this beautiful plant is attended with more trouble than many of our favourite exotics, the double kinds requiring to be grafted upon stocks of the single variety.

GRAFTING.—Whip grafting, as described in our treatise on the Geranium, is adopted where independent grafting is practised; and this should be done in spring, before the plants begin to grow. No tongue should be made, as the graft takes more kindly without it, and it is never of the slightest service after the graft has been properly bound on the stock. Care must be taken not to cut deeply into the wood in either the stock or scion. When the grafting is done, remove the plants to a hotbed or pit, and when they have ceased to grow, cut them down to the graft.

BUDDING.—This mode of propagation is most usually resorted to by those who cultivate the Camellia for profit. The French cultivators charge their plants according to the number of buds on each plant. The operation must be performed before the plants commence growing in the spring, and should be done exactly in the manner directed for the Rose, cutting the bark an inch below the bud, and carrying the cut to an inch above it. Keep them in a pit or hotbed until they have done growing, when the stocks may be cut down to the part where the bud is inserted.

INARCHING.—This being found the most certain mode of propagating the double varieties, is consequently chiefly practised. The process is very simple. Placing the pot containing the plant which you intend to propagate, close beside but a little lower than that which contains the stock, take a longitudinal slice of the bark with a thin portion of wood along with it, about two inches in length, from a clear part of the stem of the stock; this done, cut a similar slice off the scion, bring the two parts close together, so nicely adjusting them that down one side of the cut at least the bark of the stock and scion shall be perfectly even. When so placed bind them firmly together by cotton wick or bass, and over this ligature tie a little wet moss. In this condition they must be allowed to remain for six weeks or two months, when the ligature may be removed, and if the parts are united, the scion may be cut away from its parent. It will be desirable then to bind a little fresh bass round the junction, to prevent the part thickening so much more than the adjacent parts of the stem as to render it unsightly. When the stock plant has done growing, the original head may be cut away, and the plant may be treated as others. This

operation may be performed at almost any season, though just when the plants are growing vigorously, is by many considered the best time. Sometimes this method succeeds by at once separating the scion from the parent, and placing its base in a phial of water, suspended to the stock for that purpose, whence it derives sufficient nourishment while the connexion is being formed.

STOCKS FOR GRAFTING.—These may readily be obtained by taking cuttings from the present year's wood of the single red Camellia when ripening, in the month of August, cutting smoothly across at a joint or bud, and after stripping them of leaves at the base, sufficiently to allow of their being firmly fixed in the sand used for striking them in, plant them in pots from twenty to forty in each, and set the pots in a shaded part of the greenhouse for a month, when they must be removed to a hotbed, which will hasten and strengthen their growth. When they are rooted, re-pot them in loam as directed for old plants, and keep them still in the hotbed, taking care to shade them from the sun's rays. Thus treated they will be fit to graft or bud upon in eighteen months or two years after first being struck. Henderson of Edinburgh, puts in cuttings at any time during the year, except when the plants are forming new wood.

A speedy mode of obtaining stocks is adopted by some, who plant stocks in a pit for the purpose, and layer them in the fall of the year; by the succeeding autumn the majority of these layers have thrown out a sufficient number of root-fibres to procure for them an independent sustenance, when they are separated from the parent plant and potted. In the succeeding spring they form admirable stocks whereon

choice varieties may be grafted or inarched. Plants of the single red and semi-double Camellia and the single Waratah raised from seed, are considered to be best suited for stocks.

SOIL.—Cultivators of the Camellia differ very much in opinion, as to the soil best adapted to its successful growth. It seems, however, that in fine yellow loam, of close texture, which when just watered presents the appearance of clay, while at the same time it is perfectly friable, and is not liable to be baked hard in the sun, it grows most luxuriantly; indeed, not unfrequently so much so as to prevent the blooming. When such is the case, the plant may be soon checked into a blooming state, by mixing with the loam about one-third the quantity of peat. Experiments have been tried by planting them entirely in peat, when in two or three years they have nearly bloomed themselves to death. If the soil be very poor, about one-eighth the quantity of rotten leaves rubbed through a wire sieve, may be added with advantage. Manure must not be used, as its effects are injurious rather than beneficial. Henderson of Woodhall, one of the most successful growers of the Camellia in Scotland, uses the following compost:—Take light brown mould, river sand, and peat-earth, of each two sevenths; and rotten leaves one seventh; mix these all well together, and when the Camellias require shifting, the most suitable time for which is February and March, put some broken coal-char in the bottom of the pots, with a little dry moss over it.

POTTING.—The proper time for potting the Camellia, cannot be exactly specified by date, as it depends partly on

the mode used to bring them into bloom, some being forced artificially, others being allowed to bloom naturally, and some kinds having a tendency to flower earlier than others. So soon as they have done flowering, if it be after the beginning of February, they begin to grow again, and the potting ought to be performed before this takes place, if possible. The soil must be broken up with a spade, and used in a lumpy state, not being riddled on any account, because in this state it allows the water to filter through more freely, and is not so likely to be baked by the heat of the sun, and prevents the roots matting together; these are points of great importance to the future health of the plants. In the operation of potting great care must be taken not to disturb the roots more than is absolutely necessary; turning the plant out of the pot, and removing the loose soil with the fingers, or an iron skewer. If any of the roots be dead, they must be carefully removed, and the rest washed with tepid water by means of a syringe; after which, dust a little dry soil among the roots, which will adhere to them, and be of much service to the growth of the young roots; then take a new pot, or one thoroughly washed, somewhat larger than the ball of your plant, fill it one quarter of its depth with potsherds, over which lay a little moss or turfy peat, to prevent the soil being washed down among the drainage in watering; then throw in a little fresh earth, and having placed the ball in the centre, fill the pot all round, and to the brim; fill well and carefully the space between the ball and the sides of the pot, not pressing the soil too closely; as by so doing it would be rendered subject to be baked by heat, and the roots would be prevented from penetrating it. When the pot is filled, water sufficiently to settle the fresh soil among the roots. Prune off any dead

or straggling shoots—no plant bears the knife better—it is of no consequence to what part you cut, or how old the plant is, plenty of wood buds are sure to make their appearance, and a good supply of young shoots.

GENERAL TREATMENT.—When you have completed the operation of potting, if possible remove your plants to a house, where they can have the advantage of heat from 55° to 60°, while growing ; they will become stronger, and set their flower buds much better than if placed in the temperature of a greenhouse or conservatory. From March to September they must be shaded from the rays of the sun ; because if not so shaded, the leaves will lose their beautiful glossy green appearance, and become yellow, if not almost black, and will at last fall off altogether. If kept in a house built for them, the lights should be glazed with plate glass, as the unevenness of even crown glass will cause the leaves to blister. Except when growing, the Camellia requires to be kept rather dry, but during that period the roots must be liberally supplied with water, and the tops sprinkled with tepid water daily. When the flower buds are set, remove them to a shady situation in the greenhouse, and keep them quite cool until November, when they may be again placed in a little heat, which will cause them to bloom earlier, and their flowers will expand more freely and regularly, than if treated otherwise. When flowering they must be kept quite cool, heat causing the flowers to droop, and drop very early after they have attained maturity.

HENDERSON'S TREATMENT OF THE CAMELLIA.—“The best time for a regular shifting of the Camellia is the month of February or beginning of March. After shifting all those

that require it, put them into a peach-house or viney, when there is a little heat; if there be no peach-house, viney, nor piney, set them in the warmest part of the greenhouse. They will soon begin to make young wood; from the time they begin to make their young shoots till they have finished ther growth give them plenty of water. They may be kept in the viney or peach-house till they have formed their flower buds at the extremity and sides of the young growths, when a few of them may be removed to a colder place, say behind the stage of the greenhouse, for the Camellias are fond of being shaded during strong sunshine; in three or four weeks after, a few more of the Camellias may be brought from the viney or peach-house, and put into a cooler situation. This may be repeated three or four times, which will make as many different successions of flowering. Those that are wanted to come into flower early may remain in the warm-house till they are beginning to flower, when they should be taken to a cold place, say the coldest place of the greenhouse; then give them plenty of light only, and they will open their flowers well and stand long. A Camellia cannot stand heat when in flower, indeed they seldom open their flowers fine when in heat, and, at all events, the flowers soon fall off. Those that are kept all the summer in the viney, will come into flower by the first or middle of October, and a pretty large plant having perhaps fifty or a hundred flower heads, will continue in flower till the month of January. Those plants that are removed early from the viney will now be in flower, to succeed those that were in flower in October, and have now done flowering. These last should be immediately taken into the heat, they will make their young wood early, and they may remain in heat till they come into flower,

which will perhaps be a month earlier next year. By attending to shifting the Camellia plants from the warm-house to the cold, a regular succession of flowers may thus be had from the first of October to the middle of July. I have even had them all the summer, but the flowers are the best in the winter. Those produced in summer are far from being so fine, and do not stand half the time of those that come into flower in November, December, January, February, March, and April. Camellias delight to be kept damp all the summer months, and a little shaded from the strong sun. Give them plenty of water while they are making their young shoots; they may also get a gentle sprinkling over the leaves once every week during the summer season, except when they are in flower. Camellias will stand a great deal of cold without being much injured, but they will not form many flower buds without some artificial heat."

OBSERVATIONS BY SWEET.—“All the species of Camellia are universally admired by every collector of plants, on account of their beautiful rose-like flowers, and elegant dark green shining laurel-like leaves. They are very hardy greenhouse plants and easy of culture, requiring only to be sheltered from severe frost. The best soil for them is an equal quantity of good sandy loam or peat. Messrs. Loddiges find that light loam alone answers as well, or better; and in the Comte de Vande’s gardens at Bayswater, rotten dung is mixed with loam and peat. The pots should be well drained with pieces of potsherds, that they may not get soddened with too much wet, as nothing injures them more than over watering, particularly when they are not in a growing state. When growing freely they can scarcely have too much, and they should be watered over the leaves

with a fine rose-pot; they are regularly increased by cuttings or inarching on the common kinds. The cuttings should be taken off at a joint as soon as they are ripened, and planted in sand, under a glass, when they will soon strike root; when this is the case they should be planted singly in small pots, and set in a close frame, and they must be afterwards hardened to the air by degrees."

CAMELLIA HOUSES.—Like the Geranium, the Camellia is cultivated with the greatest success, and to the highest attainable perfection in a house erected for the especial purpose, and appropriated to its genera. The opinions of those best able to judge of these matters, leads us to think that a house glazed on all sides is to be preferred to any other; it should be rather lofty, as the Camellia appears to the greatest advantage when grown to the height of six or eight feet, the entire stem being furnished with lateral branches from the root to the topmost shoot, the whole figure of the plant being conical. The stages on which the plants are to be placed must be so managed as to allow of their being lowered as the plants advance in height, it being a great point in their cultivation that they be kept close to the glass. In glazing the house the best patent glass must be used, because experience has proved that the least inequality of substance in the glass is injurious to the plants; the thicker portions so concentrating the sun's rays as to burn and produce blotches on their leaves. And though many plants whose leaves are similar in substance to those of the Camellia, are more or less affected by these causes, yet this exotic is more especially injured thereby.

BLOOMING.—The Camellia is very soon destroyed as a

flowering plant, by being permitted to bloom too freely. When there are many buds upon a single plant, it is the best course to remove all except one, which will become a much finer flower than three or four would severally have been, if allowed to remain, and the plant will be preserved in a healthy state. If four or five come into flower, the chances are great against any flower appearing on the same plant in the succeeding year.

CAMELLIAS IN ROOMS.—So soon as the plants have formed their flower buds, they will do very well in a room where they can have sufficient light and air on every favourable occasion, and unless the weather be very severe, they keep healthy better in a room where there is no fire, than by their being subjected to the change of temperature consequent on the fire being allowed to die out at night. When they have ceased flowering, they should be again removed to the greenhouse until they show their flower buds for the succeeding season.

WATERING.—While in a growing state, the Camellia is more liable to sustain injury by drought, than any other exotic, and requires constant watchfulness to guard against its evil consequences. Should the ball of earth in which the plant is placed, by any oversight become so hard as not to allow the water to penetrate it, you must pierce it with an iron skewer full of holes, so as to gain access for the water throughout the entire ball.

WINTER PRESERVATION.—Camellias may be placed in pits during winter, and allowed to have plenty of air when the weather is favourable; when frosty, cover the pits over with double matting.

DISEASE.—The Camellia is subject to a small white scale, which must be carefully removed by a small pointed knife, if allowed to remain, it will eventually destroy all the young buds.

INSECTS.—The green fly occasionally attacks this plant, but they are easily destroyed by fumigation with tobacco, and syringing with water.



A LIST OF SELECT VARIETIES OF THE CAMELLIA.

C. *Aitoniana*
 alba maculata
 alba pleno
 alba semiduplex
 alba simplex
 alba simplex major
 alba variegata
 Albertii
 Alcmene
 Allnuttii alba
 Allnuttii superba
 Allnuttii variegata
 althæiflora
 amabalis
 amæna
 anemoniflora
 alba
 carnea
 Knightii
 rosea
 striata
 angrezia
 antverpensis
 ardens
 argentea
 atrorubens
 aucubæfolia
 badia
 Bealiana
 Belinda
 blanda
 campanulata
 Campbellia
 candidissima
 candor
 cantoniana
 cardinalis
 carnea
 Carswelliana
 Chandlerii
 Cliveana
 coccinea
 Colvillii
 Colvillii rubra
 compacta
 compacta rubra

C. *concinna*
 concolor
 conspicua
 corollina
 coronata
 crassinervis
 Cumingii
 curvatifolia
 Dallenii
 Dahliæflora
 decora
 Delesii
 delicatissima
 Derbyana
 dianthiflora
 Donkelaarii
 eburnea
 Egertoniana
 elegans
 Elisia
 Elphinstonii
 excelsa
 eximia
 fimbriata
 flaccida
 foliolosa
 florida
 Floyii
 foliis variegatis
 Fordii
 Fortuna
 Francfortensis
 fulgens
 Ganymede
 Garvii
 Gaussonii
 Gilesii
 gloriosa
 grandiflora
 Grunellii
 Haylockii
 Hendersonii
 Hosackii
 Hibbertii
 Houttii
 humilis

A SELECT LIST OF CAMELLIAS.

C. ignescens	C. Reevesii
imbricata	reginæ
imbricata alba	resplendens
incarnata	revoluta
incomparabilis	rosa-mundi
insignis	rosa-sinensis
insignis alba	rosea
Jussieui	rosea superba
kermosina	rosetta
Kingii	Rossii
lactea	rotundifolia
Landrethii	rubescens
latifolia	rubicunda
levida	rubra
Lindleyana	rubricaulis
longifolia	rugosissima
Lysanthe	Sabiniana
magnifica	semi-pleno
Mellinettii	sericea
minuta	serratifolia
modesta	Soulangeana
mutabilis	speciosa
myrtifolia	spectabilis
Nicholsii	splendens
nivea	spofforthia
nobilissima	spofforthia rosea
nutrata	staminea
ochroleuca	Sweetii
pœonœflora	Traversii
pœonœflora semiduplex	tricolor
Palmerii	triumphans
Palmerii perfecta	Tsubakki
papaveracea	Vandessii carnea
Parksii	Vandessii superba
Parthoniana	variabilis
perfecta	variegata pleno
picta	variegata simplex
picturata	venosa
pomponia	versicolor
orrecta	Ulanthe
Prattii	Wadii
Pressii	Wardii
Pronayana	Wellbankiana
pulcherrima	Wiltonii
pumila	Woodsii
punctata	

B. CLARKE, Printer Silver Street, Falcon Square, London.



Published by R. Tyas, Paternoster Row, July 1, 1843.
Digitized by Google

POPULAR FLOWERS.

THE CACTUS;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED

A SELECT LIST OF CACTACEOUS PLANTS.

WITH A COLOURED FRONTISPICE.

LONDON:
R. TYAS, 8, PATERNOSTER ROW,
MDCCCLIII.

Price Sixpence.

CONTENTS.

	PAGE.
INTRODUCTION	85
CEREUS SPECIOSISSIMUS	86
CEREUS FLAGELLIFORMUS	87
CEREUS GRANDIFLORUS	ib.
ECHINOCACTUS	89
EPIPHYLLUM	ib.
MAMMILLARIA	90
MELOCACTUS	91
OPUNTIA	ib.
PERESKIA	93
GENERAL TREATMENT OF CACTACEOUS PLANTS	ib.
MR. GREEN'S CULTURE OF CACTACEOUS PLANTS	94
COCHINEAL	96

TO CORRESPONDENTS.

Our Dorchester friend is informed that the name of each plant is on the plate; but as in some cases it is not readily observed, a list of the flowers figured is here printed: Geranium; Wonder.—Pansy; Grand Duke of Russia.—Carnation; Hogg's Hampden.—Fuchsia; Chandlerii.—Dahlia; Ansell's Unique.—Rose; common Moss Provence.—Camellia; a white variety.—Cactus; Cereus Speciosissimus.



THE CACTUS.



HIS extraordinary family of plants has received its name from the clusters of spines with which the surfaces of most of them are furnished ; and it is believed to be the same as the spiny plant mentioned by Theophrastus, as growing in Sicily, and being used by the inhabitants as an article of food. They are all succulent plants, tenacious of life, and of varied and remarkable structure ; very few are furnished with leaves, their stems and branches are jointed, and are armed with fascicles of spines, amongst which bristles are sometimes developed. Since it has been found that their cultivation is easy, and their treatment simple, they have become much more popular, though they have been prevented from acquiring favour in the eyes of thousands, on account of their slow growth, and the usually long period of cultivation required before they flower ; and to this we may add the apparent attempt made by florists to keep them rare and uncommon by the high prices they charge for even small specimens.

Cactus being the name by which all the members of this singular tribe are generally known, we have used it to designate our treatise, though nearly all of them are increased and propagated by different methods, and some kinds it has not yet been found practicable to propagate in this country.

The genera that we possess are chiefly natives of Mexico and South America, and some few were imported from the West Indies. We shall describe the sections into which they have been divided in detail, incidentally introducing whatever is peculiar in their treatment. The Cactus is in the twelfth class (Icosandria), and first order (Monogynia) of the Linnæan System; and in the Natural System forms an Order to which it gives its own name, Cactaceæ.

CEREUS SPECIOSISSIMUS, or the most beautiful Cereus, though a cactaceous plant, is distinguished from the Cactus by its wax-like stems and flowers; it bears perhaps some of the most splendid flowers that ornament our stoves. It is easily cultivated, and by proper treatment soon forms large flowering plants. It is propagated by cuttings, which after having been taken from the parent plant, are allowed to dry for a few days before planting, because, if put in the earth immediately, they become rotten by the superabundance of moisture, instead of sending out roots. They will root readily in light sandy soil, to which an equal quantity of fine lime rubbish has been added. Very little water must be given until they begin to grow, when it should be supplied rather abundantly. They should be grown in a good sized pot, in a compost consisting of two-sixths rich loam, three-sixths thoroughly decomposed manure, and one-sixth compounded of peat, sand, and broken tiles in equal

quantities. When growing and maturing their flowers, an abundant supply of water must be given, but in winter, and when in a state of rest, very little is required. Our frontispiece presents a portrait of a seedling variety of this *Cereus*.

“ Who hung thy beauty on such rugged stalk,
Thou beauteous flower ?
Who pour’d the richest hues,
In varying radiance, o’er thine ample brow,
And like a mesh those tissued stamens laid
Upon thy crimson lip—Thou glorious flower ?
—Lone on thy leafless stem,
Thou bidd’st the queenly rose with all her buds
Do homage.

SIGOURNEY.

There are two other species of *Cerei*, which are deserving of especial notice, namely *C. flaggelliformis*, and *grandiflorus*, both bearing flowers remarkable on account of their beauty and the fragrant odour which they emit.

C. FLAGGELIFORMIS flowers most profusely of the two; beginning to appear in May, and indeed sometimes earlier when the season is warm and genial. The petals of the flowers are less numerous than those of the latter, and the tube of the flower is somewhat longer; both sides of the petals are of a fine pink colour. If the situation where the plants are growing be not too warm, the flowers will not fade for several days after they are expanded, and so long as the plants continue in bloom, they present a very showy appearance. Its branches are trailing, and require some support.

C. GRANDIFLORUS, which is well known as the Night-

blowing Cereus, covers itself when it has attained sufficient strength, with abundance of very large, beautiful, sweet-scented flowers, like those of the majority of this kind. These flowers are, however, but of short duration ; they begin to unfold their brilliant crimson petals from seven to eight o'clock in the evening, and are fully blown by eleven ; by three or four o'clock in the following morning they are faded, closed never more to open, hanging down quite dead. But during their brief existence, their appearance is such that it is in vain to seek for any flower that can vie with it in beauty and magnificence. When the calyx is fully expanded it is near a foot in diameter ; the inside is of a brilliant yellow, presenting the appearance of a glowing star ; the exterior of the cup is dark brown ; the pure white petals augment its lustre ; the mass of stamens slightly bent back, clustering round the style, have a beautiful appearance ; and the whole effect is improved by the fragrance exhaled, which perfumes the air for a considerable distance :—

“ — See the noble Cereus rear
Its stately head at midnight drear !
Its modest bud makes no display
Before the glaring eye of day,
But sober brown conceals the glow
That lurks within that bell of snow ;
Slowly its paly leaves unfold—
Then starting give us to behold
Its full blown beauties, dazzling, fair,
With threads of gold for fingers rare.
But while with love and awe we raise,
To the bright flower our raptured gaze,
The threads of gold elude our eye,
And all its glories fade and die ;
The russet coat enshrouds the flower,
And all is gone ere matin hour.”

ANON.

No plant merits a place in the hot house more than this.

As it can be trained against a wall it occupies comparatively no room whatever. It usually flowers in the month of July, and when the plants are large many flowers will expand in one night; and will be followed by a succession for several nights.

ECHINOCACTUS.—A species in which we find many singular and interesting plants of great beauty. The structure of some of them and the arrangement of their spines is very grotesque, and they all yield beautiful flowers varying much in colour. They thrive best in sandy peat, lime or lime-rubbish, and loam well mixed together. At all times water must be administered to them sparingly, but especially during the winter months. They produce an abundance of offsets, by removing and drying which for a few days, and then planting them, these curious plants are increased. They are subject to be attacked by the red spider, as are also the *Mammillaria*, and the only efficient mode of destroying them is to dust the plants with a little dry sulphur, when they will speedily disappear—and return as quickly if not carefully watched.

EPIPHYLLUM.—So named from the flowers being developed upon the flat leaf like branches. These are splendid plants bearing white, scarlet, and red flowers of such gorgeous beauty as to render them the pride and glory of every garden having any pretension to being well furnished. This genus requires the same treatment as *Cereus*; it also grows well when grafted on *Pereskia* or *Opuntia*, especially on the former. The process is very simple. Select a small part of the plant intended to be grafted, and cut a slice out of the scion and the stock, and bring them together, when they will

adhere so closely, from the glutinous nature of the sap, as to render their being bound together artificially unnecessary; though for greater security a piece of bass is usually tied round them; care must be taken not to bruise the edge of the cut in performing the operation, as any such bruise would render them very liable to rot.

MAMMILLARIA.—This genus, so named from its small, red spined tubercles, with which its surface is entirely covered, contains many beautiful plants well deserving of a place in every collection from their singular and interesting habit. The best mode of treating them is thus described by Mr. Paxton, in his Botanical Dictionary, “About the middle of April they should be fresh potted in peat and a little sand mixed, and then plunged in tan, in a pit or frame, where the heat must be kept from eighty five to ninety five degrees by dung linings, not giving them much water until they have started afresh, and then may be added gentle waterings overhead, occasionally, in the afternoon; they should be closed early, and air given early each morning, and shade during sunshine; by treating them in this manner, they will make an amazing growth in the three following months, when they may be gradually hardened before moving them back to the succulent house,” In winter they should receive water sparingly and be kept as near to the glass as they can.

To those who are just commencing the formation of a collection of Cacti we would recommend this genus. Of all the melon shaped kinds it is the most easily cultivated, and flowers freely; it also needs less artificial heat than any other.

Mammillarias have a tendency to throw out additional heads to such an extent, that in process of time one plant assumes the appearance of several stuck together and growing on one

stem. Many admirers of Cacti prefer this genus in its simple melon form, and remove these excrescences as they appear. These kinds are easily propagated by taking out such excrescences, when about the size of a hazel nut, from the parent plant, and after allowing them to dry on a shelf for a few days, planting them in pure white sand, and placing them in a gentle bottom heat; water must be given, but very sparingly. They will soon root, and in due time form beautiful specimens; some of the kinds produce seeds occasionally when fertilized.

MELOCACTUS.—A native of the West Indies, whence it was imported in 1688. It resembles a large fleshy green melon, with deep ribs, set all over with strong sharp thorns; and, on account of its shape, has been named the great melon thistle, and also the Turk's cap. It contains a soft, green, fleshy substance very full of moisture. It produces its flowers and fruit in circles round the upper part of the cap. Some have been imported into England whose circumference has measured more than a yard, and their height, including the cap, thirty inches; in the West Indies they attain to twice this size. They are very grotesque, and require the same treatment as the *Mammillaria*, and many botanists consider the two kinds as only one species. No means of propagating the *Melocactus* in Europe has it appears been yet discovered. In their native habitat they grow out of the fissures of rocks, apparently without any earth from which they derive nourishment. In times of great drought cattle repair to the places where they grow, tear them up with their horns, strip them of their skin, and devour with greediness their fleshy and moist parts.

OPUNTIA, so named from its growing near Opus, a city

of Locris. Braddick, a nurseryman residing near London, succeeded in maturing its fruit, the prickly pear, on plants in the open air. He remembered that in its wild state the plant delighted in a dry soil, amongst rocks, near the skirts of the sunny sides of the forests; and being told that it would stand the open air in this country, he planted it in compost, (the particulars of which were communicated to the Horticultural Society and are quoted below), in a sheltered situation, but fully exposed to the sun. "The first plant that I turned out has lived in the open ground of this country for six or seven years, during which period it has endured one exceeding hard winter, and several trying springs; and in all, except the two first years, it has never failed to ripen its fruit and seeds, so that it may now be considered decidedly acclimatated. The compost used by me for growing the *Cactus Opuntia* is the following; one-half is carbonate of lime, for which lime rubbish from old buildings will answer; the remaining half consists of equal portions of London clay and peat-earth, having the acid neutralized by barilla: these are intimately blended and sifted. One square yard of this compost I conceive to be sufficient for one plant, which must be placed in the middle of a small artificial hillock, raised eighteen inches above the surface of the ground, which ground should be rendered perfectly dry, if not naturally so, by under-draining. Neither the leaves, flowers, nor fruit should be suffered to touch the ground, but they should as instantly as they are produced be kept from the earth by placing stones, pebbles, flints, or bricks under them, in imitation of artificial rock-work." They are readily propagated by cuttings taken off at a joint and dried previously to planting.

PERESKIA.—Very grotesque and ornamental plants, but differing greatly from other cactaceous plants, from the stems and branches being ligneous and furnished with proper leaves. It was named in honour of a lover of botany, Nicholas Pieresk, of Aix, in Provence. They thrive well in almost any light soil, and are increased by cuttings which readily form roots when planted in mould, under a glass, with a little artificial heat.

GENERAL TREATMENT OF CACTACEOUS PLANTS.—The following directions are extracted from the Horticultural Cabinet :—All the fine flowering sorts of Cactææ may be thus treated. Plant them in loam and peat, or sandy loam, mixed with about a fourth part of lime rubbish. Always let the pots in which they are planted be as small as the plants will allow ; large pots are injurious, because the roots are prevented from reaching the sides for so long a time, and the body of the soil is liable to retain too much moisture every time the plant is watered. Always give a good drainage, by laying in each pot a good portion of broken potshreds, as the least stagnation is always injurious, sometimes fatal ; therefore never allow them to stand in the pans or feeders in which the pots are sometimes placed. Water very seldom, not more than twice a week when they are flowering, and not so often at other times ; give very little at a time, not more than will moisten the soil all over, particularly if the weather is not fine and sunny. About the middle of June, turn them out of doors into a situation where they will not be exposed to winds, but perfectly open to the rays of the mid-day sun. Place them on a board or floor of any kind to prevent the worms from entering through the bottoms of the pots. This system of exposing them in summer gives them a check,

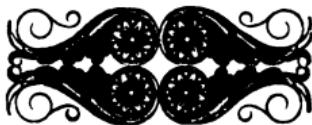
which seldom fails to produce a good bloom. Whilst out of doors, they must not be allowed to receive the heavy dashing rains, or they will suffer, perhaps die, in consequence ; either a boarded roof, or other shelter, must be provided for them on such occasions. Also, if the pots stand on a floor of slates or flags, they should be partly plunged in moss ; as the sun, by heating the pots, sometimes burns the roots of the plants. In September take the plants into the greenhouse, and place them in a situation where they will receive plenty of light and air during winter. Early in the spring, remove them to the stove in succession as they are required to bloom. Most of the species will flower very fine, without being placed out of doors at all ; but by placing them out as above the flowers will be much finer, and more abundant, than when grown regularly in the house : they may be increased by cuttings, seeds, and grafting.

MR. GREEN'S CULTURE OF CACTACEOUS PLANTS, abridged from the *Gardener's Chronicle* :—“ The soil in which I grow young plants is composed of one moiety of peat, and the other of strong yellow loam, pigeons' or sheeps' dung, and river sand, in equal portions, that has been exposed for twelve months at least to the weather, and frequently turned. I never mix the soil before it is wanted for use, and then I sift it well, and place the lumps over the potsherds for drainage. When the plants are a proper size for blooming, add more loam in repotting, particularly for *C. speciosissimus*, and give plenty of drainage. Propagate by cuttings when plants are growing freely. Cuttings from young and unripe shoots lay on a dry shelf for a fortnight, to dry up the sap; which prevents them from rotting, and causes them to throw out roots sooner; plant singly in small pots, and

put them in a moderate hotbed frame ; when these pots are filled with roots, repot and place them in an intermediate house, letting them remain for the summer, and receive a good supply of water. In autumn allow them to become quite dry, and winter them in a dry airy part of the greenhouse. In spring remove them to the intermediate house, giving them water sparingly, increasing the supply as the season advances. By the end of the second summer they will have formed good blooming plants ; and in autumn should be placed out in a warm airy part of the garden to ripen the shoots thoroughly. Afterwards they must be again dried and wintered as before. Place the first for forcing in the immediate stove, about the first of February, and continue a succession till they bloom in the greenhouse about June. They will bear the extreme of dryness and moisture, and without care to keep them quite cool and dry during the season of rest they will never bloom properly. Commence forcing at a low temperature, and give water sparingly at first ; when the plants have begun to grow freely, and the bloom-buds are well started, water copiously with liquid manure, at intervals of a fortnight, during the growing season. Thin out large and small buds, leaving those which are of equal size at distances to allow their free expansion. After having flowered, keep the plants rather dry for a short time, placing them in a cool shady part of the greenhouse. They will in a few weeks again assume their usual healthy and firm appearance, and begin to grow ; then clear off all the decayed blooms and seed pods ; place them for the autumn in a south aspect in the garden, where the air freely circulates, and supply with abundance of water ; after this winter them as before. Train them to iron stakes, made to fit the outside of pots or tubs, and fasten them with wire ; all shoots

are stopped as soon as they attain the required height ; useless side and bottom shoots are rubbed off, and occasionally some of the old shoots are cut out and replaced with young ones."

COCHINEAL.—*Cactus cochinchinifer* affords nourishment to the little insect whence we derive this brilliant dye. On the top of the fruit grows a red flower, and when the fruit is ripe this flower falls down on the top of it, so that neither rain nor dew can wet the inside. A few days after, the flower being scorched up by the heat of the sun, the inside of the fruit becomes exposed and is full of red insects. When this opening of the fruit is perceived the Indians spread a cloth, and with a stick shake the plant to disturb the insects. These take wing but hovering about the plant they at length fall down dead on the cloth, where the Indians allow them to remain until thoroughly dried.



A SELECT LIST OF CACTACEOUS PLANTS.

CACTUS.

C. corrugatus
foliosus
reductus
senilis

CEREUS.

C. affinis, white
arcuatus, ditto
cæsius, grey
coccineus, scarlet
cærulescens, blue
Colvilli, rose
Deppei
Eyresii
flagelliformis, pink
grandiflorus
heptagonus, white
Lanceanus, scarlet
Martianus, purple
Multiplex, scarlet
myriophyllus, brown
Napoleonis
nobilis, pink
ochrolencus, ochre
oxygonus, pink
Peruvianus, red
repandus, white
rosaceus, rose

C. Rayeni, white

senilis, red
speciocissimus, crimson
tenuis, red

ECHINOCACTUS.

E. abnormis, white
acuatus, yellow
cornigerus, purple
corynodes, yellow
gibbosus, white
intortus, purple
Linkii, yellow
melocactiformis, white
abvallatus, purple
Ottonis, yellow
oxygonus, pale rose
rhodanthus, rosy
Salmianus, grey
scopay, yellow
tenuispinus, yellow
tubiflorus, white

EPIPHYLLUM.

E. Ackermannii, scarlet
alatum, white
coccineum, scarlet
Hookeri, white
phyllanthoides, pale red

LIST OF CACTACEOUS PLANTS.

E. speciosum, red
truncatum, pink

MAMMILLARIA.

M. atrata, dark green
carnea, flesh-coloured
chrysantha, gold
coronaria, scarlet
dichotoma, pink
Lehmanni, yellow
Missouriensis, white
pulcherrima, red
pulchra, yellow
pusilla, pale red
quadrispina, scarlet
simplex, white
speciosa, red
stellata, pink
stella-aurata, yellow
tentaculata, scarlet
vetula, light scarlet
vivipara, red

MELOCACTUS.

M. amœnus, light scarlet
communis, red
depressus, scarlet

M. macrantha, whitish red
placentiformis, red
pyramidalis, red

OPUNTIA.

O. aurantiaca, orange yellow
Bonplandi, yellow
cochinillifera, red
crassa, yellow
cylindrica, scarlet
decumana, yellow
extensa, light yellow
ferox, yellow
Ficus-Indica, yellow
Hernandezii, variegated
leucacantha, white
myriacantha, yellow
nigricans, pink
Pseudo-Tuna, yellow
rosea, rose
sulphurea, yellow
Tuna, pale yellow

PERESKIA.

P. aculeata, white
Bleo, pale red
portulacæfolia, white.



POPULAR FLOWERS.

THE CHRYSANTHEMUM;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED

A LIST OF SELECT VARIETIES.

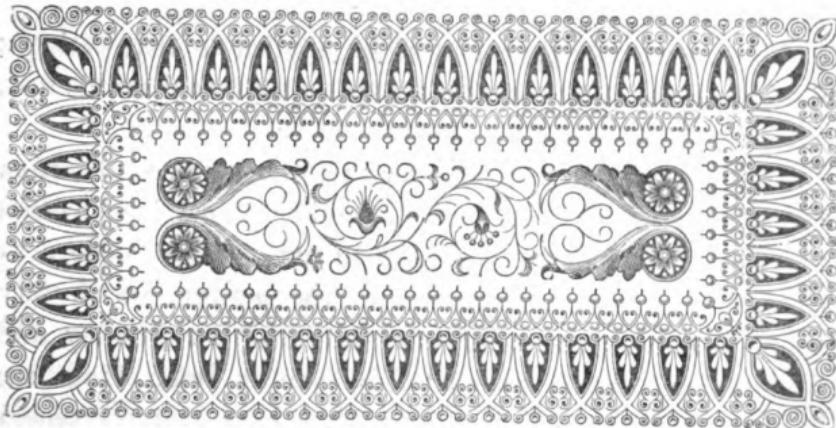
WITH A COLOURED FRONTISPICE.

LONDON:
R. TYAS, 8, PATERNOSTER ROW,
MDCCCLIII.

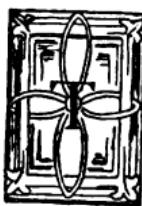
Price Sixpence.

CONTENTS.

	PAGE.
INTRODUCTION	97
PROPAGATION	98
CUTTINGS	99
CHINESE METHOD.	ib.
ENGLISH MODES	ib.
DIVISION OF THE ROOTS.	101
LAYERS	104
SUCKERS	103
TREATMENT OF ROOTED SUCKERS	ib.
CHRYSANTHEMUMS IN THE OPEN GROUND	104
AS STANDARDS	ib.
TRAINING	ib.
BLOOMING	105
LARGE FLOWERS	ib.
TREATMENT OF OLD PLANTS	106
SOIL	ib.
WATERING	107
FORCING THE CHRYSANTHEMUM	ib.
MILDEW	108
LIST OF SELECT VARIETIES	109



THE CHRYSANTHEMUM.



HE Chinese Chrysanthemum has deservedly gained the esteem of all lovers of flowers. Its claims upon our care and regard are such that none who desire to prolong the floral year to the utmost extent will neglect to cultivate some of its varieties. It is a perennial, perfectly hardy, will grow in any common garden soil, and yield pretty flowers with no more than the ordinary attention given to other perennials; and it is easily propagated. By a little extra care the size of the plants and flowers, and the beauty of the latter may be greatly augmented; and the means by which this effect may be accomplished we shall set forth in these pages after briefly reviewing its history.

This flower was named Chrysanthemum by the Greeks, to whom it would seem the yellow varieties alone were known, as its name, formed from *chrusos* gold, and *anthos*

a flower, can only in strictness be applied to that variety; though all the species of this genera are now so denominated, whatever the colour of the flower may be.

We are indebted to China for this invaluable contribution to our gardens. When nearly all other plants have ceased to bloom, this oriental flower in its endless variety of colours imparts a cheerfulness to the parterre which fifty years ago might be sought for in vain. In October and the dull and dismal month of November some kinds are in their highest perfection, and they have scarcely ceased to enliven us in the winter months ere the Snowdrop (emphatically called *Pérce-neige* by the French), presents itself as a prophetic messenger of the coming spring.

The Chinese Chrysanthemum was, in the first instance, brought into this country from Nimpu, in 1764, and was cultivated for a little while in the Botanic Garden at Chelsea, but was soon lost; and we find no further account of it until 1795, when it was introduced from France, to which country it had been imported some six years before by Monsieur Blanchard, a merchant of Marseilles. It was for some time sold at very high prices in England until its easy cultivation was discovered, when it became more common, but it is only during the last few years that the professional florist has devoted his skill and attention to its improvement, and to the increase of its varieties.

The botanical position of this flower is in the large order, *Compositæ*, in the Natural System, and in the nineteenth class, *Syngenesia*; and the second order, *Superflua*, of the Artificial System of Linnæus.

PROPAGATION.—A few hybrids have been produced from seed in this country, but as it is not a common or easy mode

of propagation we shall proceed to treat of the other means used for their increase.

BY CUTTINGS.—*The Chinese Method.* Early in May cuttings are taken from the ends of the shoots, about five inches in length, and planted in a shady situation, covering them with a hand glass until they have formed roots, when the air is admitted for the purpose of strengthening the plants. After they are furnished with plenty of roots they are potted separately in small pots, which are then plunged in the border in an open situation, where they are frequently supplied with an abundance of water if the weather be dry. Towards the latter part of August or early in September the plants are shifted into larger pots previously filled with rich mould; they are still kept in the open air without being plunged, and are continually supplied with rich liquid manure, such as the drainings of a sewer, stable, or cow-shed, and others of a like nature. When frosty or unfavourable weather sets in they are transferred to the house, and are so placed as to have plenty of light and free air. The flower buds are reduced in number, so as to force those which are allowed to remain to a large size. When thus treated in this country they throw out no shoots from the roots, but one stem rises from the pot, and at the height of about four or five inches branches off into two, three, or more flowering stems, which becoming from twelve to twenty-four inches long, terminate in fine large flowers, and the whole plant is covered with a vigorous and healthy foliage.

English Modes.—When the Horticultural Society first received these plants their plan of propagation was by setting cuttings of the side branches in pots in August, using a good drainage of gravel, and placing them in a sheltered spot,

covering them with glasses until they had formed roots. By this treatment they are generally ready in five or six weeks to be potted off singly, when they are kept in a warm situation until November, and then, for winter protection, placed in frames. In the succeeding April they are repotted in thirty-twos, set in a warm and sheltered spot during summer and plentifully supplied with water, and trained to sticks towards the close of the summer season. When the flower buds are formed they are removed to the green-house, where they are allowed all the light and air they can obtain in good weather, only shielding them from rain, frost, and wind. This plan has, however, been superseded by a much better, whereby a pretty shrub thoroughly clothed with a rich foliage from bottom to top is obtained. About the end of March or in the beginning of April, cuttings of from four to five inches in length are taken and planted in very small pots, and shaded with hand glasses until they have emitted a good quantity of roots; when they are transplanted into small pots filled with a compost of peat, loam, and sand, in equal quantities. When they begin to grow they are again shifted into pots somewhat larger, and this operation of shifting is repeated many times during summer, by some practitioners from eight to twelve times. These successive shifting have the effect of keeping the plants completely clad with foliage and of a bushy habit, rendering unnecessary the very common mode adopted to attain that object by pinching off the ends of the shoots; a practice which its results render objectionable, as it induces the emission of a great number of shoots which weaken the plant and serve to diminish the size of the flowers.

DIVISION OF THE ROOTS.—In the middle of March take up the roots of your plants, shaking off the earth adhering to them, and divide the ball into small pieces. Examine each piece carefully, and so prepare it that not more than three stems will rise from it, then put them into small pots, place them in a conservatory or greenhouse, and cover them with hand glasses ; let them remain there from ten to fifteen days, when the glasses must be occasionally taken off until the plants may be safely removed to a cold frame, which will be early in April ; they must however, still be kept somewhat close, never allowing air unless it be warm and sunny weather, and then sparingly, closing the frames early in the afternoon. When the plants are a foot and a quarter in height, stop them, by which means they will be induced to throw out a number of lateral shoots. Tie each principal stem to a stake two or three feet long, the stakes diverging from each other at the top to allow space for the lateral branches. As the season advances, gradually harden the plants to the open air, taking care not to check their growth ; it being a great point in the cultivation of the Chrysanthemum to push them forward early in the season. Being well prepared and hardened they will be capable of bearing full exposure to the air early in June, without their leaves being materially injured, which is of importance, when they should be plunged pots and all in the earth in a sheltered border, three or four inches under the surface of the earth.* Here they should

* Mr. Monro, in a communication printed in the *Horticultural Transactions*, says, "The pots are never plunged in the earth, as it is found that they do equally well without it ; and when they are plunged in garden mould, the plants are continually rooting through their pots, and require to be moved every week or fortnight."

remain till near the end of August; the pots in which they are plunged should be seven inches in diameter; and during this period the plants require careful and frequent watering, as the roots being confined in a small pot the shoots would grow weak and small were this neglected. Shortly after they are thus plunged the roots rise over the edges of the pots, and procure nourishment from the surrounding soil. When lifted the plants must be taken out of the pots, the confined roots lightly loosened, and with those which had formed over the top of the pots carefully potted. They are then placed in a situation shaded from the sun, and as early as convenient taken into the greenhouse.—*Floricultural Magazine*.

LAYERS.—A great variety of methods of layering are adopted by nurserymen from July to September; one simply pegs them down in pots, and duly watering them finds them rooted in three or four weeks; another sets a number of plants in the open border in May, and waters them abundantly with liquid manure to strengthen and invigorate the shoots, and in September, when they have formed their flower buds, bends them down into small pots filled with rich compost, when they rapidly emit root fibres; and this appears to be the most successful mode. The Chinese, in September, when the buds are showing, tie bunches of wet moss and mould round the stems at any distance from the head according to their fancy; and a very easy mode is, to pass the point, after slightly cutting the bark of the shoot, carefully through the hole at the bottom of a pot, which should be conveniently placed for the purpose, and draw it up until the notched part is about one-third of the depth of the pot from the top, then

fill the pot with good soil; in this position they will root very quickly, as the shoot is retained in its natural position, and the flowing of the sap is not so much impeded as in other ways. When rooted, whatever mode of layering has been adopted, they must be cut from the parent and placed in a sheltered situation, and well watered, and afterwards treated as directed under division of the roots.

SUCKERS.—Early in March remove some of the strongest of those which have sprung from the roots of plants which flowered the year before. If any part of the root comes away with the sucker the operation will perhaps be more certain of success, though the Chrysanthemum is so vivacious that almost any part of a shoot will grow if put in the ground. Take pots three inches in diameter filled with equal parts of fresh loam, decayed leaves and clear sand, insert three or four shoots round the side of each, taking care that they are of the same kind, and set the pots under a hand-glass in a greenhouse shading them from the noontide sun.

TREATMENT OF ROOTED SUCKERS.—When the roots are formed freely round the sides of the pots, plant each sucker singly in a pot, filled with one half fresh loam and one fourth each sand and leaf mould, whose diameter is an inch greater than that whence it is removed, and again place them in a warm and sheltered spot, until they recommence growing. Then put them in a cold frame to harden and prepare them for full exposure, which may generally be desirable about the middle of April. In the beginning of May, the plants being in a vigorous condition, shift them into pots varying from six to eight inches in diameter, using a compost of one half fresh loam, and one fourth each peat earth and river

sand, which being done, set them in a situation where they can be protected from the wind and sun. When about fifteen inches high the stems, which should be reduced to three, must be carefully tied to stakes, and the plants watered abundantly.

CHRYSANTHEMUMS IN THE OPEN GROUND.—Those who have not the advantage of a greenhouse to bring these beautiful flowers to their full perfection, may cultivate them with considerable success in the open ground; for this purpose the most hardy should be selected, such as the rose or pink, changeable white, buff, orange, and purple. They present a very pleasing appearance when the stems are laid down upon the ground, by which the flowers are dispersed over the bed like stars, about five inches above its surface. For this purpose they must be planted out in June, about nine inches apart each way, and in July the tops of the shoots must be pinched off, and the branches laid down in August.

AS STANDARDS.—Old plants taken up and replanted will sometimes grow to the height of five or six feet; these should be tightly bound to a strong stake of sufficient length, and though the lower leaves will fall off leaving the stems nearly bare, the cluster of leaves and flowers at the top has a very agreeable effect.

TRAINING.—For training against walls or palings (a south aspect is to be preferred) cuttings rooted in the previous autumn are best, because they attain a greater height than those rooted in the spring. The proper mode of training the Chrysanthemum either in pots or in the open ground so as to

make the best display, is to train only one or three stems erect, and allow them to branch regularly on all sides.

All suckers must be removed, and the side branches, and top or head so arranged and adjusted by a nice use of black thread or wires, attached to the main prop, as to render the figure of the entire plant perfectly symmetrical. If three stems are not trained, one is better than three, because it grows stronger; but three are better than two, which do not compose a whole; and better than a greater number than three, because, unity departed from, there is no limit to irregularity. One and three are unity; because one is complete, and three has a beginning, middle, and end. All possible numbers besides, either fall short of or exceed unity; they are therefore irregularities; and irregularities are redundant, infinite, and unsatisfactory to contemplate, unless there appears a sufficient reason for departing from unity.

BLOOMING.—When your plants begin to show for flower, if you desire to have them very large in preference to an abundant show of bloom, you must pinch them off as they appear, leaving only one on each stem; this must be done carefully, as the principal stem is very apt to snap off.

LARGE FLOWERS.—If your plants are in the open ground, mix with the soil in which they are growing a quantity of decayed manure, which has formed part of a cucumber or melon bed; and when the flower-buds are appearing, top dress the earth around your plants with the same kind of manure, the richness of which will be washed down to the roots by the showers then usually abundant,

and will promote the desired end ; should the season, however, be dry, artificial watering must be adopted.

TREATMENT OF OLD PLANTS.—During the month of May, detach from the stools the suckers, which are at this season about twelve inches long, and are usually furnished with a few root fibres. Take and plant them as you would cabbage plants, in a warm and sheltered part of the garden, placing the rows twenty-four inches apart, and the plants in the row eighteen inches distant from each other ; pinching off the point of each shoot before planting. Give them two abundant waterings, and take no further care of them till August, when each plant must be carefully examined, and all the side-shoots pruned off, except four : this operation will strengthen the stem, and form a regular head. Having done this, let them remain until the flower-buds are fully formed ; and a week or ten days before you intend to pot them, cut round each plant with a small spade, so as to form the ball, and partially check the roots, which, by the period of potting, will have formed fresh fibres. In lifting them for potting, you may almost lay hold of them by the stem and place them in the pots, so easily do they bear moving. In this simple way, the most perfect trees in miniature may be formed, with stubby short stems, yielding flowers in the greatest perfection.

SOIL.—*Paxton* recommends a light, rich, turfey loam, mixed with good rotten dung, sand, and leaf mould, in the proportions of one-half of the former and one-sixth of each of the last three. *Curtis* uses two-thirds rich turf and loam, and one-third leaf mould or decayed dung. The principle by which we should be guided in the choice

of soil for Chrysanthemums, however, is comparative dryness during winter, as excess of moisture will destroy this plant; and the quality of retaining moisture in the summer, because extreme dryness renders the leaves flaccid and causes the whole plant to droop.

WATERING.—This is a very important operation during the summer season. Plants exposed to all the changes of the weather, in the open border, in fine sunny weather appear in a drooping and dying state at an early hour in the morning; being then watered, by eleven or twelve o'clock they are again in the same condition, and require a second watering; and a third will be needful in the evening. The rule should be, indeed, to water them three times a day in dry weather; and this should be done frequently with rich manured water, which strengthens them very materially. When the autumnal rains set in the necessity for this constant irrigation is in a great measure superseded; and however much neglected, the Chrysanthemum will then grow rapidly, when in fact it should be forming its flower buds as the plant itself ought to have been grown sufficiently large at an earlier period of the year, as intimated in a former part of this treatise.

FORCING THE CHRYSANTHEMUM.—Experiments have been made, by which it would seem that flowering plants of this favourite genus may be obtained at all seasons of the year. It is of great interest, as showing what may be done in floriculture by artificial means, but we should regret the practice if it became universal, as the Chrysanthemum in June would appear as much out of season as does the Primrose, one of our chief favourites in spring, when we see a

solitary flower here and there upon some warm and sheltered bank in September. The experiments referred to were made by detaching the sprouts or suckers in the autumn, when the plants were in full bloom, and setting them in small pots. They were then kept in a temperature of fifty degrees, and never less, and were occasionally shifted as they increased in size; the soil at all times being kept moist. By this treatment the plants were made to flower throughout the month of May following.

MILDEW.—Chrysanthemums are liable to become mildewed, and when any plants are observed to be in that state, they should be separated from the rest, and dusted over with flower of sulphur; two or three days after the operation the plants should be well syringed, to wash this off.



A SELECT LIST OF CHRYSANTHEMUMS.

Abelard	Defiance, white
Achmet Bey	Duc de Conigliano, crimson
Adventurer, yellow	Duc D'Albufera
Adela, quilled white	Duchess de Montobello
Agrippa, rose	Eclipse, white
Arabella	Egedia
Arago, buff and red	Elegans, rose
Aristides	Empress, lilac
Astre Lumineux	Eloire
Aurora	Expanded
Bicolor, white and yellow	Exquisite, white
Beauty, pale lilac	Flavescens, lemon
Belladonna, pink	Florabundum, dark lilac
Bethulia	Flechier, dark rose
Bertha	Formosum, white and yellow
Bijou	General Laborde
Buffon	George Sands
Conqueror, white	Golden Lotus flowered, yellow
Conductor, orange	Gem, pink and white
Criterion, white	Grand Napoleon, purple
Champion, lemon	Goliath, white
Col. Combes', salmon	General Laborde
Charlemagne, flesh color	General Vallee, blush
Christopher Columbus	Grandis, flesh color
Coronet, white	Gouvain St. Cyr, orange
Coccinea, scarlet	Georgiana, flesh
Campestroni, purple	Hobate
Compactum, white	Imogene
Cassimir Perrier, small crimson	Imperial
Chancellor, white and pink	Imperial, pale lilac
Celestial, blush	Invincible, creamy white
Changeable, yellow	Insigne, pink and red
David	Irene
De Eregui	Isabella, white
Delphine	Ivanhoe, white
Demosthenes	Ivanhoe
Diana	Julius Cæsar

A SELECT LIST OF CHRYSANTHEMUMS.

Jousouf Bey	Princess Marie, light pink
King, pale rose	Perspicuum, pink
La Superbe, blush white	Park's small yellow
Latour Auvergne	Queen, deep rose
Leonora, buff and red	Queen Victoria, pink
Leontine	Reine de Prusse, rose
Letitia Bonaparte, blush	Rosalind, pink
Louis Philippe	Roseum, rose
Lucidum, white	Rosetta, quill'd pink
Luxaire	Sappho
Marechal Massena, yellow and red	Salter's 310
Marechal Augereau, lemon	Small brown
Marchioness, white	Superb white
Mirabile, white and buff	Superb clustered yellow
Magnet, yellow	Spectabile, white
Malvina	Sanguineum, red
Marquis, light rose	Striatum, white and pink
Marquis	Sultana, rose
Minerva, pink and white	Surprise, white
Marie, red	Tedgne
Marie Antoinette	Two colored incurved, yellow and brown
Marshal Duroc	———red
Madame Pompadour, dark rose	Triumphant, pink and buff
Madame Mina	Triumphant
——— Du Barri	Tasseled yellow
Memnon, pink	Theresa, red
Minerva	Tasseled lilac
Ne plus ultra, white	Tasseled white
Old Purple	Unique, pink
Orion, creamy white	Vesta, white
Perfection, pale lilac	Victory, white
Pulcherrimum, rose	Victorine
Phyllis, lemon	Victory
Prince de Benuento, quill'd pink	Virginia, quilled white



POPULAR FLOWERS.

THE AURICULA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED,

A LIST OF APPROVED VARIETIES.

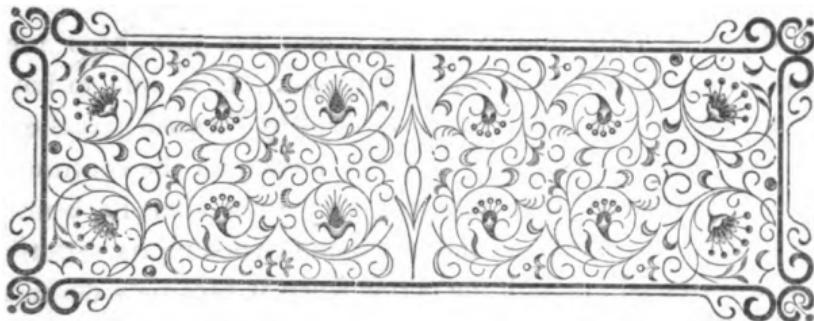
WITH A COLOURED FRONTISPICE.

Auriculas, enriched
With shining meal all o'er their velvet leaves.
THOMSON.

LONDON:
R. TYAS, 8, PATERNOSTER ROW.
MDCCCLXXXI.
Price Sixpence.

CONTENTS.

INTRODUCTION	109
PROPAGATION :—	
BY SEED	112
TREATMENT OF SEEDLINGS	113
BY DIVISION OF THE ROOTS	ib.
RE-POTTING	114
AMATEUR'S WINTER PRESERVATION	115
SPRING TREATMENT	116
AURICULAS IN THE OPEN GROUND	ib.
THE AURICULA STAGE	117
MANAGEMENT OF THE BLOOM	ib.
PROTECTION WHEN IN FLOWER	ib.
REQUISITES OF A FINE FLOWER	118
NEW VARIETIES	ib.
COMPOSTS	119
WINTER TREATMENT OF AURICULAS IN THE OPEN GROUND	ib.
QUACKERY IN FLORICULTURE	120
LIST OF FAVOURITE VARIETIES	121

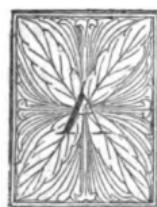


THE AURICULA.

INTRODUCTION.

Auriculas, enriched
With shining meal all o'er their velvet leaves.

THOMSON.



URICULAS are old favourites with the English florist. So far back as the end of the sixteenth century Gerard writes of it as a flower well known, and generally cultivated about London. He calls it Beare's-eares; a name given to it because the leaves are supposed to have some resemblance to the ears of the bear. Botanists, in their scientific works, speak of it as *Auricula Ursiflora*; the French call it *Oreille d'Ours*; the Italians, *Orecchia d' Orso*; and the Germans, *Barenörlein*.

The Auricula is a native of Switzerland, and is found not only in the Alpine regions of that remarkable country, but

in those of Italy and Germany; and has also been met with in the neighbourhood of Astracan. It is said to have been first obtained from the Swiss Alps by Flemish gardeners, through whom it became generally known on the continent. It was introduced into England very soon after its beauty and the practicability of improving and enriching its varieties was ascertained; though the period when it became a denizen of the English parterre is not recorded.

Its chief colours in a wild state are red and yellow, occasionally purple, and sometimes variegated. The flowers are covered with mealy powder, which serves in some degree to protect them from the rain, and also from the heat of the sun. It is worthy of note, that the leaves of different varieties of the Auricula are varied almost as much as the flowers, a circumstance not so common in some of the other species of *Primulæ*.

In the Linnæan System of botany the Auricula is placed in the fifth class (*Pentandria*), and first order (*Monogynia*); and in the Natural System in the order *Primulaceæ*, which has for its type our chief spring favourite among the wild flowers of our native land, the *Primrose*, whose delicate yellow petals are augmented in beauty and brilliancy by the rich verdure that clothes the sunny places where they grow. Many a time has our youthful heart been gladdened on coming suddenly upon a gently sloping bank, where

“ the meek
And soft-eyed *Primrose* ”

shed its cheering influence, promising brighter days to come; a promise harmonizing so closely with all the anticipatory reflections of early youth, who in the future look only for increase of pleasure and of happiness. Alas! how delusive!

One of our poets has introduced this flower as an emblem of the feelings more particularly incidental to "early youth," which in the *Sentiment of Flowers* the Primrose is made to represent.

" Ask me why I send you here
 This firstling of the infant year ;
 Ask me why I send to you
 This Primrose all bepearl'd with dew ;
 I straight will whisper in your ears,
 The sweets of love are wash'd with tears.
 Ask me why this flower doth show
 So yellow, green, and sickly too ;
 Ask me why the stalk is weak
 And bending, yet it doth not break ;
 I must tell you these discover
 What doubts and fears are in a lover."

CAREW.

All the flowers in this natural order are pretty, and grow on dwarf plants. They are so nearly alike in form and general appearance, that any person who knows the Primrose — and is there one person in England who does not? — may tell at once whether or not the flower he looks upon belongs to the order Primulaceæ.

Like the Primrose, the Auricula blooms early in the spring, cheering our gardens with its various coloured flowers, whose petals seem like painted velvet, some having corollas of richest imperial purple, others being clad in bright ethereal blue or gorgeous gold ; while more humble kinds content themselves with delicate lilac, homely brown, or virgin white, edged, bordered, and mottled with all the fantastic colours which are found in the beautiful yet sometimes gaudy tulip ;

" In comes Auricula ; arrayed she comes
 In splendour ; and in liveliest colours blooms."

ATHENÆUM.

The Auricula, though supposed to be the *Alisma* of Dioscorides, does not appear to have been a favourite flower among the older poets ; nor with those who delighted in the cultivation of flowers, until within the last three centuries. Modern floral linguists have assigned a variety of sentiments to this flower ; among these it has been made the emblem of Painting, on account of the pencilled corollas, so richly and delicately coloured ; in Germany it would seem to be considered as emblematic of Love of Home ; for one of their poets, addressing the Auricula, says, “ Though called an ear, to me thou seemest a blooming eye, full of thoughts of home, as fain to be upon the Alpine mount again ! ” It has also been made to represent Pride, from its gorgeous attire.

“ See

Where arrayed in sparkling dust, and velvet pride,
Like brilliant stars arranged in splendid row,
The proud Auriculas their lustre show.”

KLEIST.

PROPAGATION.—SEED.—The seeds may be sown as soon as they are thoroughly ripe, or at any time from December to March, at the option of the cultivator, in peat earth, in shallow earthen seed pans, having ample drainage. Drop the seeds at pretty regular distance upon the surface, and slightly cover them with the finest of the peat earth, and then moisten it by gently sprinkling water over the pans ;* which may then be placed in the front of the greenhouse, at the back of a cold frame, or even in a mild hot bed, where there is no steam nor much damp ; but wherever you place them, you must cover them with hand glasses, or

* This is best done by dipping a hard clothes brush in soft water, then turn it up, draw the hand briskly over the surface of the bristles, and the water will fly off in an opposite direction almost as fine as dew.

lay flat pieces of glass over them. It is found that the seedlings are forced up more equally by the application of a little heat, more especially the weaker plants, which frequently bear the finest flowers. When just appearing above the soil the young plants will sometimes require a little water or shading, and attention must be paid to keeping them free from worms, and from any decaying vegetable matter on the surface of the soil.

TREATMENT OF SEEDLINGS.—When the little plants have formed six leaves, the more feeble of them should be pricked again in the earthen seedpan, while the more vigorous must be pricked out, three inches apart, in middle-sized pots. In these pots they are placed in a cold frame, and nursed until the succeeding August, when they must be transplanted singly into pots called sixties, in which they are allowed to remain until they flower; when their respective merit will be ascertained, and they must be classed accordingly.

BY DIVISION OF THE ROOTS.—The most preferable season of the year for propagating the Auricula by division of the roots, which is generally adopted for the increase of the most approved varieties, is in the latter part of July, or early in August, when the roots should be taken up and divided, or slips, which have formed roots, may be detached from the parent plant, and potted in a sound and rich compost, formed of equal parts of fresh loam, and cow-dung thoroughly decomposed, adding thereto a quantity of river sand, equal to one-tenth of the whole, which has been mixed for twelve months at least, well mellowed by exposure to the frost, and kept sweet by frequent turning. Instead of

cow dung you may use well decayed leaves if you can procure them.

REPOTTING.—Every collection of Auriculas requires a general examination and shifting once a year. The practice of florists as to the period when this is done is not uniform, some shifting them as soon as they have done flowering, others delaying the operation until late in July or early in August. Whenever the operation is performed, it must be borne in mind that the chief object to be sought is to get the plants into the most vigorous condition before the period of flowering, and to have all the plants as nearly as possible in an equal state of forwardness. This is an important point in the management of the Auricula; for, though spring is the season in which they naturally flower, some grow more rapidly than others, and through adventitious circumstances will occasionally take the lead, and show for flower in the autumn. When any do so, the infant bud must be immediately removed, which will be replaced by another at the proper time.

In the operation of shifting, every plant must be turned out of the pot in which it has flowered, to ascertain the state of the roots and soil; if the roots are numerous, and in a healthy condition, and the soil sweet and porous, it will be only necessary to remove a little portion of the earth from the bottom and top of the ball; and, placing it in the new pot, fill it up and round with fresh compost. When the potting is completed, the leaves should be half an inch above the surface of the soil, and the soil should be an inch below the rim of the pot.

Should the roots of any one of the plants be few in number and feeble, and the soil close, compact, and moist,

the whole must be shaken off, the roots well washed, and all decayed parts cut away; fading and dead leaves must be pulled off, and the plant repotted in a pot a size smaller; and it may here be observed, that the most material point in potting the *Auricula*, is to provide ample and effectual drainage; for if water cannot readily find its way among the soil and the roots of the plants, and through the pots, it becomes corrupt by stagnation, and, instead of nourishing, is poisonous to the delicate fibres of the root.

When you have shifted and watered all your plants, place them upon a stage, or in a frame, with an eastern aspect, in a situation where they can have free air, and be protected from heavy rains when necessary. Here let them remain until the severe cold of the winter sets in, when they must be removed to a situation having a south aspect, to obtain for them all the sun they can have during that season. Mr. Kenney, of Totteridge, used to clear away all the mould from the roots of his healthy plants every third year, and after washing them, cut off any decayed or unsound part, and shorten the main root.

AMATEURS' WINTER PRESERVATION.—The *Auricula* is a favourite flower among the weavers in Lancashire, who grow it to great perfection. Very few of these possess frames and lights, but as a substitute they attach a weather board, by means of hinges, to a wall or fence, the front of which when closed is made to rest upon the edge of a board, at about nine inches from the ground; so that the weather board being in a sloping direction the rain runs off as it falls. This protection they close only in wet or very severe weather; the pots are imbedded up to the rim in sand or coal ashes, and though they do not flower so early in the

spring as those which are kept in glazed frames through the winter, the plants are stronger, and the stems are well able to support the trusses of flowers erect. Moreover, they are not so apt to rot, or so liable to be attacked by mildew, as plants in more confined places.

SPRING TREATMENT.—About the end of January, or a little later, the plants must be again thoroughly examined, the decayed leaves stripped off, and the surface soil in every pot stirred up, and removed, and its place supplied by a top dressing sufficient to nearly fill the pot. This should be richer than that used in the autumnal potting, not only with the view of stimulating the growth of and strengthening the plant, but also to render the colours of the flowers richer and more intense. Thus treated, they will require little more attention until they flower, except plentiful watering, and occasional irrigation with manured water applied to the roots, taking care not to water the leaves. If any plant shows for two trusses of flowers, the weakest should be removed, so as to allow the one left the benefit of the entire strength of the plant.

AURICULAS IN THE OPEN GROUND.—The Auricula, as has already been observed, is a mountainous plant, and does not naturally thrive in a low situation, where the earth and the atmosphere are very damp; in such places it can scarcely be expected that success will attend their cultivation in the open ground; but where this is determined on, the driest and highest part of the garden should be selected, and a bed formed sufficiently large for eight or a dozen plants; it should also be in a situation sheltered from the rays of the meridian sun, having a north-eastern or

eastern aspect. Remove the natural soil to the depth of eight or nine inches, and replace it with compost, raising the bed somewhat above the surrounding ground, so that any excess of moisture may readily flow away. Of course you will reserve your choice varieties for potting.

THE AURICULA STAGE.—The stage for these plants should be so made and placed, that the opening flowers may be conveniently seen—the whole sheltered from wind and rain—and be provided with a defence from the noon-day sun. Sometimes a stem will be observed, here and there, too weak to support its truss of flowers erect; in such cases, a stiff piece of wire should be stuck into the soil, and the head bent into the form of a hook, so as to support the truss in its right position.

MANAGEMENT OF THE BLOOM.—Florists, according to their fancy, cut out the weaker pips in the truss, so as to reduce the number to from eight to fourteen, that those remaining may become stronger, the whole umbel rounder, and to make room for the development of each pip; and, after the flowers are expanded, they adopt other methods, which can only be learned by observation and experience, of getting the petals into the desired position.

PROTECTION WHEN IN FLOWER.—When the flowers are beginning to open, they should be allowed the benefit of any gentle shower that may fall, and also of the sun for an hour or so in the morning, but at all other times they should be shaded by a piece of thin board, five or six inches square, which, having a hole pierced at one corner, should be slipped on to a short stick, previously fixed in the ground, of

sufficient length to support the shade an inch or so above the truss of flowers. If this precaution be not taken, the sun's rays will cause the colours to run into one another and spoil the beauty of your flowers.

REQUISITES OF A FINE FLOWER.—To constitute a first-rate Auricula, it should have a firm and perfectly upright stem, of sufficient length to bear the umbel of flowers above the foliage. The umbel must be perfectly round, and the flowers, or pips, whose footstalks are required to be firm and elastic, should be eight in number at least. The corolla must be perfectly round and smooth ; the neck of the corolla yellow, or pure white, forming a perfect circle. The colours decided, brilliant, and resembling velvet to the sense of feeling as well as sight. The flowers large and very regular ; the stamens and pistil filling the tube well, but not projecting beyond it.

NEW VARIETIES.—The only way in which new varieties of the Auricula can be obtained is from seed, and great care is needful to secure that matured by the impregnation of the first-rate kinds. The usual mode of attaining this object, is to place the most esteemed sorts close to each other when in bloom, in the hope that the pollen may accidentally be carried on to the stigmas of each other. This is at the best a very uncertain mode, and there seems no reason why the pollen should not be removed by the artificial use of a camel's hair pencil, as is frequently done in the cross-impregnation of other flowers. But whether artificial aid is rendered, or whether the flowers are left to the chance of accidental impregnation, the parent plants must be set in a situation where they will not suffer from extreme changes in

the weather, nor be exposed to the rays of a hot sun; and those seed vessels which appear to be weak or decaying must be cut away, and the strongest alone left to grow to maturity. When the seed vessels are dry and of a deep brown colour, let them be gathered and kept in a cool place until you sow the seed.

COMPOSTS.—A good compost is made by taking equal parts of coarse sand and peat, or bog earth, like that in which the *Ericas* are usually grown, and mixing therewith twice the quantity of old hot-bed manure, well pulverised; these are thoroughly incorporated by sifting or screening, and the whole should be subjected to the chemical action of the atmosphere, by being frequently turned throughout the winter, and especially in frosty weather.

The following is also well recommended, though the ingredients are not generally so easily to be obtained: one-third fresh maiden loam from an old pasture or common, and the other two-thirds made up of equal parts of the droppings of sheep, horses, cows, poultry, dessicated night-soil, and river sand. All these should be intimately incorporated four or five months before being used, and frequently turned during that period; a little salt, and a dusting or two of hot lime, will prevent worms, slugs, and insects from harbouring in the compost.

WINTER TREATMENT OF AURICULAS IN THE OPEN GROUND.—Auriculas may be preserved through the winter without potting them, by providing in the autumn a number of pots, about twelve inches deep, with their bottoms out; then first placing these in an inverted position over your plants, cover the entire bed between the pots, to the thickness of

eight or ten inches, with short new horse-dung; at night, and when the weather is very frosty or wet, place a tile or slate over each pot, which will effectually protect your plants from injury. When the weather is fine take off the tile or slate during day-time, that they may have the advantage of air and sunshine.

QUACKERY IN FLORICULTURE.—Mr. Hogg says that “Quackery, even in the growing of flowers, has as many followers as in any other line.” And not a few growers of the Auricula will tell the amateur that he must use bullock’s blood, sugar bakers’ scum, pigeons’ dung, and a whole host of out-of-the-way ingredients, in his compost, if he would wish to have really fine flowers. All these things are too heating in their nature to be safely used by an amateur florist, and, in his hands, generally destroy the plants.



A LIST OF APPROVED VARIETIES OF THE AURICULA.

Those to which G is annexed are from the List of Mr. GROOM, of Clapham, one of the most successful cultivators of this favourite flower.

Ashton's Bonny Lass.	Gabel's Sidney Smith.
Berle's Superb, G. <i>green edged.</i>	Galloway's Glory of Oldham, G.
Blue Bonnet.	Gordon's Champion.
Booth's Freedom, G.	Grime's Privateer, G. <i>grey edged.</i>
Burch's Archagathus, G.	Healey's Prince of Wales, G.
— Cleopatra, G.	Hedge's Britannia, G.
— Duchess of Kent, G.	Hofley's Lord Nelson, G.
— Violet, G.	Hornsey Hero, G.
Calcott's Navarino.	Hudson's Apollo.
Campbell's Robert Burns, G.	Hughes's Pillar of Beauty, G. <i>white edged.</i>
— Venus, G.	Kenyon's Ringleader, G. <i>grey edged.</i>
Chillcot's Brilliant, G.	Lady Blucher, G.
Clapton Hero.	Lady Wellington.
Clough's Defiance, G.	Lancashire Lady, G.
Cockup's Eclipse, G.	Laurie's Field Marshall.
— Volunteer, G.	— Glory, G.
Compton's Admiral Gardiner, G.	— Recorder, G.
Conqueror of Europe.	Lea's British Crown, G.
Cross's Duke of Wellington, G.	— Venus, G.
Dickson's Apollo.	Leigh's Bright Venus, <i>white edged.</i>
— Earl Stanhope, G.	— Colonel Taylor, G.
— Dr. Franklin, G.	Lord Brougham.
Eaton's Lord Grey, G.	Metcalf's Lancashire Hero, G. <i>grey edged.</i>
Edland's Wonderful.	Miller's William Pitt.
Faulkner's Ne Plus Ultra, G.	Moore's Jubilee, G.
Fletcher's Mary Anne, G.	Oliver's Lovely Ann, G. <i>grey edged.</i>
— Ne Plus Ultra, G.	Page's Champion, G.—See Frontispiece.
Franklin's Bellona.	
Gabel's Duke of Wellington, G.	
— Lord Nelson, G.	
— Prince Regent, G.	

LIST OF APPROVED AURICULAS.

Page's Duchess of Oldenburgh, G. <i>green edged.</i>	Thorncroft's Invincible, <i>green edged.</i>
——— Lord Hill, <i>grey edged.</i>	Tomlinson's Commander-in-Chief, G.
——— Waterloo, G.	Warris's Prince Blucher, G. <i>green edged.</i>
Pearson's Badajoz, G. <i>green edged.</i>	Washington's Universe, G.
Pollett's Highland Boy, G.	Watt's George Canning, G.
——— Ruler of England, G.	Waterhouse's Conqueror of Europe, G.
——— Standard, G.	Wild's Lord Bridport, G.
Popplewell's Conqueror, <i>white edged.</i>	Wood's Delight, G.
Rider's Sovereign, G.	——— Lord Lascelles, G.
——— Waterloo, G.	Wrigley's Northern Hero, G.
Royle's Green Laurel, G.	Yeatherfield Hero.
Schofield's Abba Thule, G.	
Schole's Generalissimo, G.	
Simson's Lord of Hallamshire, <i>white edged.</i>	
Slater's Cheshire Hero, G.	
Smith's Britannia, G.	
——— Emperor Alexander, G.	CRIMSON AND PURPLE SELFS.
——— General Bolivar, G.	Bishop of Lichfield, G.
——— Princess Charlotte, G.	Bury's Lord Primate, G.
——— Sovereign, G.	Dickson's Apollo, G.
——— Waterloo, G., <i>green edged.</i>	Egyptienne, G.
Stretch's Emperor Alexander, G.	Grime's Flora's Flag, G.
Sykes' Complete, G.	Hufton's Squire Mundy, G.
Taylor's Favourite, G.	King of the Alps, G.
——— Glory, G., <i>white edged.</i>	Kenyon's Freedom, G.
——— Incomparable, G., do.	Martin's Eclipse, G.
——— Ploughboy, G., <i>grey edged.</i>	——— Mayfield, G.
Princess Royal, G.	——— Miss Martin, G.
Thompson's Revenge, G.	Newton's Delight, G.
——— Bang-up, G.	Othello.
	Queen of the Alps, G.
	Schole's Ned Lud.
	Whittaker's True Blue.

B. CLARKE, Printer Silver Street, Falcon Square, London.



POPULAR FLOWERS.

THE HYACINTH;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN BEDS, POTS, OR GLASSES,

With Directions for Drying and Preserving the Bulbs.

TO WHICH IS ADDED,

A DESCRIPTIVE LIST OF SELECT VARIETIES.

WITH A COLOURED FRONTISPICE.

Shade loving Hyacinth! thou comest again,
And thy rich odours seem to swell the flow
Of the lark's song, the redbreast's lonely strain;
And the stream's tune—best sung where wild flowers blow,
And ever sweetest where the sweetest grow.

ELLIOTT.

SECOND EDITION.

LONDON:

R. TYAS, 8, PATERNOSTER ROW.

MDCCCXLIV.

Price Sixpence.

CONTENTS.

INTRODUCTION	121
PROPAGATION :—	
BY SEED	125
BY OFFSETS	126
HYACINTH BED	ib.
WINTER PROTECTION	127
BLOOMING	ib.
THE HYACINTH AS A WINDOW FLOWER	ib.
IN POTS	128
IN GLASSES	129
GATHERING AND DRYING THE BULBS	130
DRYING HYACINTHS GROWN IN GLASSES	ib.
STORING BULBS, &c.	131
INJURIOUS EFFECTS OF MOISTURE	ib.
A FINE HYACINTH	132
LIST OF FAVOURITE VARIETIES	133

To Correspondents.

“A SUBSCRIBER” at Bristol is informed that his request will be complied with in the introduction to the first volume, which will be published with the *Tulip*, October 2.



THE HYACINTH.

INTRODUCTION.

Shade loving Hyacinth! thou comest again,
And thy rich odours seem to swell the flow
Of the lark's song, the red breast's lonely strain;
And the stream's tune—best sung where wild flowers blow,
And ever sweetest where the sweetest grow.



THESE lines are addressed by Elliott to the wild Hyacinth, the only species indigenous to Great Britain, and commonly known as the Harebell. It loves to grow in the deep recesses of woods and groves, where it abounds in the spring-tide of the year, scattering its agreeable, though somewhat feeble, fragrance around. The flowers are in general blue, varying occasionally to white and flesh colour. It belongs to the Natural Order, Asphodelæ; and in the Linnæan System is placed in the Sixth Class (Hexandria), and First Order (Monogynia).

A fair poetess has sung so sweetly the beauties of our

native flower, referring to its habitat, ordinary colour, fragrance, and many other of its charms, that we think our readers will be glad to be made acquainted with her lay :—

In Spring's green lap there blooms a flower,
 Whose cup imbibes each vernal shower,
 That sips fresh Nature's balmy dew,
 Clad in her sweetest, purest blue;
 Yet shines the ruddy eye of morning,
 The shaggy wood's brown shade adorning.
 Simplest floweret! Child of May!
 Though hid from the broad eye of day,
 Doomed in the shade thy sweets to shed,
 Unnoticed droop thy languid head:
 Still Nature's darling thou'l remain;
 She feeds thee with her softest rain;
 Fills each sweet bud with honied tears,
 With genial gales thy bosom cheers.
 Oh! then, unfold thy simple charms,
 In yon deep thicket's sheltering arms.
 Far from the fierce and sultry glare,
 No heedless hand shall harm thee there;
 Still, then, avoid the gaudy scene,
 The flaunting sun, the embroidered green,
 And bloom and fade with chaste reserve, unseen.

SYMONDS.

Spencer in his “Faëry Queene” introduces the Hyacinth as the favourite of Phœbus :—

“ And all about grew every sort of flowre,
 To which sad lovers were transformde of yore;
 Fresh Hyacinthus, Phœbus paramoure
 And dearest love.”

And Menalcas, in the third Eclogue of Virgil's Bucolics, is made to express his sense of the favour of Phœbus, who adds to other gifts the sweetly blushing Hyacinth :—

“ Et me Phœbus amat: Phœbo sua semper apud me
 Munera sunt, lauri, et suave rubens hyacinthus.”

The mythological story in which Hyacinth's death is

recorded varies greatly. The youth, whose handsome form and curled locks won the admiration of Phœbus (? Phœbe) and Zephyrus, was the cause of an inveterate jealousy between the two goddesses. Zephyrus, it is related, judging that Hyacinth preferred her rival, chose rather to destroy his life than submit to the mortification of seeing another preferred before her. On an occasion, therefore, when Hyacinth was playing with quoits, the jealous goddess, with no "gentle zephyr" breath, forced the flying orb aside and smote the youth that he died. In another account we are told, that the quoit flung by Phœbus rebounded from a stone as Hyacinthus stooped to take it up, and from the blood which followed the wound, the flower that bears his name sprang up. The Laconians held an annual feast during three days, in honour of this victim to the jealousy of the gods, and looking on Phœbus as the cause of his death, they refrained, on the first day, from singing any thing in honour of that deity.

The Hyacinth is a favourite with the poets ; Homer, Virgil, Ovid, have each immortalized the flower. Milton uses its floral bells as a simile of form :—

" and Hyacinthine locks
Round his parted forelock manly hung clustering."

And Shakspere has used our native Hyacinth as a simile, so beautifully expressive and appropriate, as to impart an additional charm to the simple unpretending flower :—

With fairest flowers,
Whilst summer lasts, and I live here, Fidele,
I'll sweeten thy sad grave : thou shalt not lack
The flower that's like thy face, pale Primrose; nor
The azured Harebell like thy veins: no, nor
The leaf of Eglantine, whom, not to slander,
Outsweeten'd not thy breath.

Greatly as we admire our little Harebell, the Oriental Hyacinth bears away the palm. They are all deserving of admiration ; the

Hyacinth, with sapphire bell
Curling backward,

is beautiful, but the rich blushing rose-coloured bells are our favourites ; they are more pleasing to the eye, and the fragrance they emit is far more agreeable than that proceeding from any other coloured variety.

There is no certainty as to the period when the Oriental Hyacinth was first imported into this country, though there can be little doubt that it was long anterior to 1597 ; neither can we say when it was first treated as a florist's flower. There is every reason to believe that the Dutch were always more successful in its cultivation than any other people, and it is very probable that they silently assumed, and that as silently was accorded to them, the superiority over the florists of other countries in this respect, from the fact, that just previous to the time when the Hyacinth bulb was deemed worthy of cultivation, they had borne away the palm as growers of the Tulip. The cultivation of Hyacinth bulbs is a source of great profit to them ; they annually export large quantities to France and England ; and above an hundred acres in the neighbourhood of Haarlem alone are employed in their propagation. There are now said to be upwards of two thousand varieties of this flower, varying in colours of purest white, pale to intense blue, rose, pink, red, and yellow, and all emitting a pleasing fragrance.

We shall close this introduction with an Eastern Ode, addressed to the Hyacinth by Casimir :—

Child of the Spring, thou charming flower,
No longer in confinement lie,
Arise to light, thy form discover,
Rival the azure of the sky.

The rains are gone, the storms are o'er;
Winter retires to make thee way;
Come then, thou sweetly blooming flower,
Come, lovely stranger, come away.

The sun is dress'd in beaming smiles,
To give thy beauties to the day:
Young zephyrs wait with gentlest gales,
To fan thy bosom as they play.

PROPAGATION.—BY SEED.—Hyacinths are propagated in two ways, *viz.* : by seeds and offsets. In the former mode the seeds are sown in a deep box, filled with a light sandy soil, about the end of October. In severe frosty weather this box must be covered so as to protect the young plants. In the second year, when the leaves die, the bulbs may be taken up and stored away in a dry place till the arrival of the ensuing planting season. The seedlings are kept apart from other bulbs, and grown by themselves every succeeding year, until they have attained a flowering size; which will be from the fourth to the sixth year after sowing.

OFFSETS.—These are detached from the parent bulb, and treated like the seedlings, in being kept apart from flowering bulbs, and being grown by themselves until they flower, which is usually in the third year after their separation from the parent; after which they are added to the general collection.

HYACINTH BED.—Great care is required in the cultivation of the Hyacinth; and whoever would grow it to per-

section must form a bed for the especial purpose. This bed must be four feet wide, and consequently capable of holding six rows of bulbs, each eight inches apart from the other; and in the rows (which may be of any length the cultivator pleases) the bulbs must be at the same distance from each other. It should be prepared in September, in a situation open to the south and west, but sheltered from the north and east. The bed must be boarded round to the height of three feet from the ground, and surrounded with a gravelled walk. The natural soil at the bottom of the bed is then trenched and raised up by the admixture of river sand, fresh loam, and rotten cow dung, sprinkled with salt, to within ten or twelve inches of the top of the boarding. The surface layer for the bulbs should be composed of one-fourth each, maiden sandy loam, well decayed leaf mould, and river sand; and one-eighth each, cow dung and night soil, both thoroughly decomposed. This compost is said to retain its virtue sufficiently long for three annual bloomings; yearly additions of each ingredient are, however, desirable, to prevent deterioration in the show of flowers.

The bulbs should be planted during the last ten or fourteen days in October or early in November; they are usually covered with a layer of compost of about two inches thick; and some florists are in the habit of bedding and covering each bulb with sand; this, however, is not material. Where it can be obtained, a layer of decayed hot-bed dung an inch thick is added in December, by some cultivators, as a defence against frost in winter, and afterwards against drought; when this additional layer is intended to be placed over the bed, the compost with which the bulbs are covered at the time of planting, must be only an inch in thickness.

WINTER PROTECTION.—It will be necessary during winter to provide some defence against extreme frost and cold heavy rains, which may most readily be done by placing hoops across the beds, and spreading mats over them. In mild weather air must always be admitted.

BLOOMING.—About the end of April the Hyacinth begins to show the colour of its flower, when it is necessary that props should be provided for placing behind each bulb, to which the rising stems are to be loosely tied with green worsted. A canvass awning should now also be erected, to protect the flowers from rains and the direct rays of the sun, by which their beauty will be preserved, and the period of their duration in bloom will be prolonged. This awning must not be allowed to remain over the bed the whole day, but only during the hottest part of it; from nine or ten in the morning until four or five o'clock in the afternoon. If kept in too close an atmosphere the stems and leaves become drawn, and the bulbs are made weak and small. Thus protected, they will continue to delight the eye for three weeks at least, when the awning must be removed, that the leaves may have the benefit of full air and light. The hoops must now be replaced, so that if heavy rain should fall during the ripening of the bulbs, mats may be thrown over to protect them.

AS A WINDOW FLOWER.—Our French neighbours admire the Hyacinth as much as we do, and are very successful cultivators of it. When treated as a window plant they prepare a box, of dimensions suitable to the position it is intended to occupy, twelve inches in depth, in which they

first put a layer of coarse sand about three inches in thickness. They then fill it up with a compost consisting of equal portions of sandy peat, lightest maiden soil, and thoroughly decomposed cow or horse manure, or leaf-mould. Before planting, they water the compost with water in which a quantity of salt has been dissolved. They plant in September or early in October at the latest, inserting the bulbs at a depth of four inches from the surface, and six inches from each other, inclining them a little, so that the crown of the root is slightly directed to the south. The box is kept free of weeds and covered with clean straw as a protection during severe frost. When in flower they preserve them as long as possible in that state by shielding them from the night air by a canvass covering, and with the same from the influence of the sun's rays in the day. When the leaves are dessicated the bulbs are taken up, allowed to dry in a shaded but airy place, and in a month the offsets are detached for propagation. While growing, they water them only when the earth is dry at the depth of half an inch. They allege, that if the Hyacinth be thus treated, more beautiful flowers are obtained, and that they degenerate less quickly than when grown in the garden.

HYACINTHS IN POTS.—Those who desire to grow and flower the Hyacinth in the house, and prefer pots, should plant them in the course of September in a compost formed of one-fifth each leaf mould, rotten cow or horse dung, and river sand; with two-fifths of maiden loam, to which a little salt may be added. Pots known as thirty-twos are commonly used, but if pots could be obtained of the same diameter as thirty twos, and twice the depth of the diameter, they would suit the roots better, the plant would be more

healthy and vigorous, and the bulb less exhausted when it has done flowering than under its present treatment. After placing an oyster-shell or a piece of broken pot over the draining hole, put a layer of cow dung well decomposed at the bottom, and fill up to within two inches of the rim with the compost above described, on which place the bulb, surrounding it with sand; then add more compost, so that about a quarter of an inch of the crown of the bulb only may be visible. Having thus treated all your bulbs, place them in the open ground, and cover them with garden soil so that the bulbs may be six or nine inches below the surface. Let them so remain for a month, then take the pots up, wash them well, place a little fresh soil over the surface, and expose them to all the sun and light possible. When they have ceased to flower the bulbs may be treated as elsewhere directed; only before taking them up the pots should be put in the open ground and laid on their sides. If you wish to have your Hyacinths in bloom by Christmas, it is best to plant them in August, and cover the surface of the pot with tan to prevent the leaves from being stimulated into growth; and when they have been planted about six weeks, remove the tan and place the pots in cold frames close to the glass, when the leaves and flower stem will develope themselves in perfection.

HYACINTHS IN GLASSES.—When grown in glasses the bulb should be placed in the glass during the first fortnight in November, and the crown of the *root* should barely touch the water. Put the glasses in a cellar or dark place for fourteen days, and then change the water and bring the glasses into the light. The water must now be changed two or three times a week, and on each occasion put a small

salt-spoonful of salt in the water; which will materially strengthen the plants. If the offsets put forth their stems, cut away the shoot, which will very much strengthen the main stem and spike of flowers, as may readily be proved by allowing two stems to grow to maturity from other bulbs.

GATHERING AND DRYING THE BULBS.—When your Hyacinths have done blooming, cut down the flower stem, but allow the leaves to remain; at this time they contain a considerable quantity of sap, which it is desirable should be absorbed by and stored up in the bulb. This process will be completed in about a month after the flower stem is cut down, when the bulbs must be taken up, and the dry and decayed foliage may be removed to within an inch of the crown of the bulb; the fibrous roots must be left untouched. Having thus done, lay them on the beds with the crown inclining towards the north, and cover them an inch deep with sand; which will prevent the bulbs from being dried too rapidly, and from shrinking in substance. After remaining in this state for about a fortnight, the fibres will be found dry and withered, when they may be considered ripe. You may now remove them altogether from the bed, rub off the fibres and any loose skins attached to the bulbs very carefully with a little soft woollen cloth, and then place them in your store boxes; cover them over with dry sand, and there let them remain till the next planting season. If several bulbs are stored away together they are liable to become heated and so destroyed.

DRYING HYACINTHS GROWN IN GLASSES.—When the flowers are faded, take the bulbs and plant them care-

fully in a light sandy soil in pots, and set them in the open ground during the day for a week or two, when they may be laid on their side and treated as those flowered in pots or beds; or plant them in a north border with plenty of sand round the bulbs, giving them a good watering, and let them remain until the leaves are altogether decayed.

STORING BULBS, &c.—Great care is necessary, in a named collection, to prevent confusion and uncertainty as to the names of varieties, and it is also desirable to plant the same bulb in the same place every year. The best mode of preventing confusion is to make a plan of the bed in a book, dividing the plan into squares, each square being numbered, and corresponding with a numbered list of the names of your bulbs; and to correspond with this plan a series of drawers, divided into compartments, each compartment being large enough to contain a single bulb. These compartments must be numbered in accordance with the list, and in these drawers your bulbs must be stored. When the planting season returns, hand the bulbs from the drawers to the corresponding square on the bed. Your collection must be kept up by offsets or by purchase from dealers, as however careful you may be there will certainly be some vacancies every year.

MOISTURE.—The greatest enemy to the Hyacinth is moisture, and whenever it is in excess the bulbs are sure to be destroyed. A raised bed therefore must be in England far preferable to one level with the surrounding soil. If not so high as that recommended in another part of this treatise, it is of the utmost importance, indeed essential, to the successful growth of the Hyacinth, that the bed should be raised

sufficiently to ensure ample drainage, so that the bulb may be above the level of the ground next to the bed. Water must be given very sparingly, and only where the surface of the soil is completely dry; when the stem is just thrusting itself through the surface, manured water will be found to be of great service.

A FINE HYACINTH.—To be reputed a fine Hyacinth, it is requisite that the stem should be strong and erect, the spike of flowers long and compact; and the flower-bells large, numerous, very double; and the colour pure and clear. Those which present a contrast of hues in the centre of the ball are most esteemed. When exhibited as a prize flower, only one stem is allowed to each plant.



A DESCRIPTIVE SELECT LIST OF HYACINTH BULBS
FROM THE CATALOGUE OF
MESSRS. T. & C. LOCKHART, CHEAPSIDE, LONDON.

*Those marked * are most preferable for glasses.*

DOUBLE HYACINTHS.

- *Agatha Catharina, rose
- *A la mode, white, violet eye
- *Anna Maria, white, purple eye, fine
- Belvidere, deep crimson
- Bleu foncé, azure, dark eye
- Blocksberg, bright mottled blue
- *Bouquet d'orange, buff
— pourpre, dark indigo, green tips
- *— royal, fine large rose, carmine eye
- Buonaparte, fine dark blue
- *Carolina, pure white
- *Catharina la victorieuse, large rosy bells
- Commandant, dark blue
- *Comte de Bentinck, blue
— la Coste, fine dark red
- Mirabeau, deep blue
- *— St. Priest, fine pearl blue
- Crœsus, yellow, pink eye
- *Duc d'Angoulême, large dark mottled blue
— de Berri d'or, large yellow, pink eye
— Valois, fine white, rose eye
- *Enterprise, fine large rose
- Envoyé, fine light blue, dark eye
- Flos sanguineus, deep rose, green tips
- General Ziethen, deep rose, dark eye
- Globe céleste, clear blue, dark eye
- Gloria florum, large white bells
— suprema, white, large carmine eye
- Gloriosa superba, large pink bells, red eye
- *Göthe, crimson
- Goudbeurs, pink, red eye
- Grand Monarque de France,
- French white, pink eye, large bells
- *Grootvorst, very fine large rose
- *Habit brillant, light blue
- Helicon, the finest of all Hyacinths, very rich blue
- *Herman Lange, white, rose eye
- Heroine, primrose colour
- Honneur d'Amsterdam, large rosy bells
- Keizer Alexander, fine dark indigo
- King Alfred, dark purple
- *König Asingaris, fine early, pearl colour
- *Kroon van Indien, dark blue
- L'Abbé de Verac, fine blue
- La beauté suprême, red dark eye
- *— deesse, fine pure white
— guirlande, exquisite rose
— majestueuse, lively blue, green tips
— plus belle, blue, purple eye
— renommée, very dark blue
- *— Tour d'Auvergne, very fine pure white
— vestale, pure white
- *Laurens Koster, bright violet blue, mottled, excellent
- Madame Catalani, deep rose
— de St. Simon, white, red eye
- Marmont, beautiful pearl blue
- Marquise de la Coste, large rosy bells
- Martinet, fine blue, purple eye
- *Matilda, fine blush, rosy eye
- *Mignon de Dryfhout, fine large blue
- Miss Betsy, fine rose
— Kitty, white, purple eye
- Moore, fine dark crimson
- Morillo, broad petalled blue, very fine

LIST OF APPROVED HYACINTHS.

<ul style="list-style-type: none"> • Ne plus ultra, very large, white violet eye • Og Roi de Basan, large white, pink eye • Parelboot, delicate pearl blue, dark eye • Parmenio, fine striped blue • Pasquin, light blue, dark eye • Passétout, fine shaded blue • Perruque royale, large flesh colour • Pourpre superbe, dark indigo • Prince Albert, new and splendid rose • —— of Wales, new large pure white • —— Waterloo, fine white Pyrene, pure white, green tips Pure d'or, dark citron Rex rubrorum, large rose, red stripes Robin Hood, fine dark blue, green tips Rouge pourpre et noir, rose and purple, black eye • Rudolphus, fine dark blue Sceptre d'or, white, primrose eye Sphera mundi, large white, fine blue eye Sultan Achmet, large pure white • Temple of Apollo, rosy pink Velours pourpre, black purple • Violet foncé, dark velvet • Virgo, white, pink eye • Waterloo, fine deep carmine 	<ul style="list-style-type: none"> • Diebits, intense crimson • Duchess of Kent, fine French white Eclatante parfaite, pink Funny Kemble, dark rose • Grande blanche imperiale, large blush white • Grand Mogul, fine light blue • Haller, dark rich blue • Henrietta Wilhelmina, rose white stripes • Hercules, fine French white • Heroine, beautiful rich primrose Johanna Christina, fine rose • Königskroon, large white La belle Africaine, very dark blue —candeur, pure white —crepuscule, very dark rich indigo —dame du lac, beautiful shaded rose —grande vedette, very large pearl blue —plus noir, quite black • Lord Brougham, fine chamois colour Madame Guizot, dark pink • —— de Talleyrand, fine pure white • Monsieur de Faesch, rich carmine • Orondates, fine large light blue • Prince Albert, rich black purple • Princess Royal, beautiful deep rose • Pronkjuweel, pearl colour • Queen Victoria, fine rich crimson Quiberon, nearly black • Quintin Durward, beautiful dark indigo Somnus, very dark purple • Tubiflora, new large white • Voltaire, large wax-like white — large light blue • Vulcan, rich dark indigo • William the first, fine large black.
--	---

SINGLE HYACINTHS.

- Appelius, fine deep rose
- Appius, very dark blue
- Asterius, very dark indigo
- Baron von Tuyll, large dark blue
- Belle, pure white
- Eadre, ditto
- Buonaparte, light blue with dark shade
- Circe, new and splendid carmine
- Diana, pink with white stripes

Rec

ber

ber

ns. &c

le
ness

re

ber

ber

ber

ber

ber

ber

ber

ber

ber



POPULAR FLOWERS.

THE TULIP;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED,

A LIST OF SELECT VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON :

R. TYAS, 8, PATERNOSTER ROW

M D C C C X L I I I .

Price Sixpence.

CONTENTS

	PAGE.
INTRODUCTION	133
VARIETIES OF THE TULIP	136
PROPAGATION	ib.
BY SEED	ib.
BY OFFSETS	138
BREAKING	ib.
TULIP BED	ib.
PLANTING	139
PROTECTION	140
BLOOMING	ib.
TAKING UP THE BULBS	141
CASUALTIES	142
FORCING THE TULIP	ib.
COMPOST	ib.
CHARACTERISTICS OF A FINE TULIP	ib.
LIST OF CHOICE VARIETIES	145

N. B.—Subscribers are requested to read the third Page of the Wrapper.



THE TULIP.

Then comes the Tulip race, where beauty plays
Her idle freaks; from family diffused
To family, as flies the father dust,
The varied colours run; and while they break
On the charmed eye, the exulting florist marks,
With secret pride, the wonders of his hand.

THOMSON.



HERE is a small yellow flower occasionally met with in chalk pits in England, in the months of April and May, with six petals separating from each other, but bearing some resemblance to a cup, if the circle were filled up; the petals are acute at the end; the stem bears one solitary flower, and the leaves are lanceolate in form; this is the native type of the Tulip tribe. How near it may be allied to the gorgeous denizen of the parterre it is impossible to say. There are those among professional florists who doubt the truth of the statement that all our garden Tulips are derived from the species named after Gesner, a Zurich botanist; and it is not improbable that the latter may have

been rendered more vigorous in this climate by impregnation with the former. It is of little importance, however, through what course of culture the numerous splendid varieties we possess have been obtained. Well may the poet ask,

For brilliant tints to charm the eye,
What flow'r can with the Tulip vie?

for indeed no other flower is so richly variegated with bold streaks of distinct and vivid colours of every possible hue and shade.

The wild Tulip we first named possesses an attraction which procures for it that attention which its simple flower would never gain. It is agreeably fragrant, while of the garden variety it may with truth be said

Yet no delicious scent it yields,
To cheer the garden or the fields,
Vainly in gaudy colours drest,
'Tis rather gazed on than caress'd.

We are told that this choice favourite of the florist was first received in Europe about 1577, having been brought from Persia by way of Constantinople; and its cultivation has been ever since a great source of profit to many in this country, but more especially to the inhabitants of the Netherlands. Every one has heard of the mania for these bulbs in the middle of the seventeenth century, which has long ago ceased to be universal, though even now a moderate collection of fine Tulips is worth a large sum of money.

Tulipa Gesneriana was not named after that eminent botanist and natural historian, simply because of his high character as such, but on account of his having figured the flower, and accurately described it in his botanical works, by which means its existence and merits were first recorded, and

through that record made generally known throughout the continent of Europe. This author says, that he first saw the Tulip in the garden of John Henry Harwart, at Augsberg.

Gerard, the herbalist, tells us, that a "loving friend" of his, "Master James Garret, a curious searcher of Simples, and learned Apothecarie in London, had vndertaken to finde out, if it were possible, the infinite sorts, by diligent sowing of their seeds, and by planting those of his own propagation, and by others received from his friends beyond the seas, for the space of twentie yeares not yet being able to attain to the end of his travaile, for that each newe yeere bringeth forthe new plantes of sundrie colours not before seene ;" this account was published in 1597, to which we might add, that "since that time until now, divers lovers of Tulips have continued the same experiments, but yet have they not attained the desired end."

The Tulip is a flower that soon perishes if not carefully protected from the weather. The poet Herrick, in his quaint and quiet way, makes it the medium of a lesson to the young and beautiful of the fair sex.

Bright Tulips, we do know
Ye had your coming thither ;
And fading time doth show
That ye must quickly wither.

Your sisterhoods may stay,
And smile here for an hour ;
'But ye must die away,
E'en as the meanest flower.

Come virgins, then and see
Your frailties, and bemoan ye ;
For lost like these,—'twill be
As time had never known ye.

In the Linnaean System botanists place the Tulip in the

sixth class, Hexandria, and first order, Monogynia; while in the Natural System it is in the order Liliaceæ, and in the division Monocotyledones.

VARIETIES OF THE TULIP.—The Tulip is divided by the florist into four principal varieties, and three of these are again subdivided:—

1. *Bizarres*.—These are marked with scarlet and purple upon yellow grounds.
 1. Flamed Bizarres.
 2. Feathered Bizarres.
2. *Biblæmens*.—Purple or violet marks, upon a white ground.
 1. Flamed Biblæmens.
 2. Feathered Biblæmens.
3. *Roses*.—Rose or cherry-coloured marks, on a white ground.
 1. Flamed Roses.
 2. Feathered Roses,
4. *Sel's*.—These are white or yellow, simple colours occasionally red or purple, but in this last case they are termed breeders.

PROPAGATION.—There are two modes of propagating the Tulip, viz. by seeds and by offsets.

BY SEED.—Propagation of the Tulip by seed is a mode that amateurs very rarely adopt, though it is the only way by which new varieties can be obtained, several years elapsing between the sowing of the seed and the first budding of the plant for flower. Indeed, it is generally considered that its term of infancy is of the same duration as that assigned to

mankind by the laws of England, viz. seven years. It will be well, however, that we point out the way and leave it to the reader's inclination to follow or decline it. Having obtained seed from the choicest varieties, procure a seed-pan whose bottom is perforated with many holes, through which the surplusage of water may readily escape after irrigation. In this put a layer of gravel or broken pots in very small pieces, and over this layer place thin slates, overlapping, without touching each other, on a somewhat inclined plane, after the manner of a slated roof. Having so done, fill up the pan with sandy loam, and plant the seeds, in the months of September or October, half an inch below the surface. After sowing, the pans should be so placed as to be under the influence of the morning sun until about eleven o'clock, until cold weather comes in, when they must be more fully exposed to the less powerful rays of the sun and protected from cold winds and severe frost; little more attention than this is required for two years, except keeping the pans clear of weeds.

The object obtained by the interposition of the slates between the sandy loam and the gravel is the stoppage of the root, which, in ordinary circumstances, grows so rapidly downwards as to materially retard the growth of the bulb; and it is believed that by this check upon its natural tendency the strength of the young seedling is thrown into the bulb, and its formation thereby greatly promoted and accelerated.

In July of the second year the bulbs are taken up, dried, and thenceforth treated as full grown bulbs. The first flowers they bear are termed *selfs*, which we scarcely need to say are of one colour throughout. They are of course slightly esteemed by the casual observer, and the florist now

commences a most important operation in order to procure that rich variety of tints for which the Tulip is so universally admired.

BY OFFSETS.—These are planted shortly after their separation from the parent bulb, in a bed appropriated to themselves, in the soil which is elsewhere recommended for mature bulbs, and are treated precisely in the same manner

BREAKING.—This is the technical term applied by florists to the curious and interesting process by which the *self-coloured* Tulip is rendered variegated. It is through many vicissitudes that it acquires the rich attire in which the amateur generally beholds it. One year it is surfeited with the luxuries of the richest food wherewith vegetables are fed; another it is dieted like a pauper on the poorest and most meagre soil. In a succeeding season it is exposed to all the inclemencies of the weather in an exposed situation; and in the following, the wind is tempered to its frame, and, that no ungenial air should hurt the fondling, it is sheltered and nursed with the most tender care. Then again, they are planted in the garden where as seedlings they first imbibed the dews of heaven, and anon are sent miles away to inhale another atmosphere; so continually growing them in different soils and situations until it is supposed they have attained their perfection.

TULIP BED.—When you have decided on the situation of your bed; which should be sheltered from the north and east winds, and at the same time open and airy so that the bulbs in their earliest stage of growth may be benefitted by the direct influences of the sun; measure out its dimensions,

the length according to the quantity of your bulbs, but the width not exceeding three or four feet, a wider bed than that being found inconvenient on many accounts. Having planned the bed, remove the natural soil to the depth of twenty-four inches, and fill up the space, thus emptied, with the prepared compost. If you have no compost ready, procure a quantity of rich turfey loam, and well rotted manure from an old cucumber bed, and mix them together with a small quantity of sharp river sand. Some florists board the bed round to the height of about a foot; and in all cases the centre of the bed should be at least three inches higher than the extreme sides, so that the surplus rain water, when gentle showers are allowed to fall upon the beds, may run off readily down the sloping sides.

PLANTING.—This operation is performed with the greatest advantage and probability of success about the second week in, or at any rate in the course of November. A dry day should be selected if possible. Assuming that the bed has been previously prepared, it will be necessary to mark it out so as to have the bulbs planted in regular rows, the appearance of the bed, when the Tulips are in flower, being rendered more agreeable by regularity of arrangement. This object is accomplished by straining a string across the bed, and by passing a stick along the string, at the same time gently resting its point upon the surface of the soil. This will leave a line upon the bed sufficiently defined for the purpose. Then with a dibble, such as is used in planting cabbages, make holes four inches deep, at the distance of six or eight inches from each other along the line. To ensure uniformity of depth, insert a peg or two in the dibble at four inches from the point. This done, take the bulbs and peel off the brown

skin from about the crown, put a little sand at the bottom of each hole, then place the bulb in, and cover it with sand; taking great care not to bruise the bulb, as the least disruption of the vessels will occasion canker, by which the bulbs would be destroyed. When all are planted rake the bed over to give a smooth and neat appearance.

PROTECTION.—When the operation of planting the bulbs is completed, fix hoops over the bed, and cover them with canvass or matting during keen frosty weather, or on occasion of heavy rains only, as gentle rain, and the influence of slight frost on the soil is rather beneficial to the growth of the bulbs than otherwise. When the leaves make their appearance, continual examination of the bed will be necessary, and all insects must be destroyed. During March and April, the beds may be occasionally watered with advantage, but only when the surface of the soil appears dry and parched.

BLOOMING.—From the moment that colour begins to shew through the unfolding buds of your Tulips, the bed will require constant attention. Taller varieties must have their stems supported by sticks, as, on account of their tenderness at this stage of their growth they are very apt to snap. An awning must also be erected, for the two-fold purpose of protecting the flowers from the rays of the sun, and from rain. The former, if not intercepted, absorb all the colours from the petals, destroying the beauty of the bloom, and have a withering effect on the whole plant; the latter, by one single shower, would break every flower in your collection, and all your previous care and labour would be thus at once destroyed. These consequences are

avoided by the erection of the awning ; the period of flowering is greatly lengthened, and you are richly rewarded by the daily delight of looking upon some of the most gorgeous flowers with which nature adorns the earth, in their highest attainable perfection.

TAKING UP THE BULBS.—The lifting of the bulbs, and their preservation during the season of rest, is a point of considerable importance in the general management of the Tulip. It is usual as the petals fall off to remove the incipient seed-pods, unless seed be required, by which means the juices, which would naturally flow towards manufacturing the seed, are checked, and become absorbed by the bulb. When, on examination, after this, it is found that the stems will bend down to the ground within two or three inches without snapping, or when they are changed to a purple hue, the bulbs are considered to be in a fit state for lifting, which operation should be performed on a cloudy day. Being taken up, they are spread in a dry and airy place, but covered so as to be sheltered from sun and rain, until the end of August or September, when the offsets are removed, and loose skin gently rubbed off, without injuring or bruising the inner skin. This done, they must be stored away in shallow boxes or trays, divided into compartments, numbered in accordance with a plan of the same, and the bulbs arranged therein, so as to correspond with a numbered list of your varieties. Each bulb occupies a separate compartment, and is covered with perfectly dry sand. Sea-sand must not be used, because it contains a large portion of salt, and when the atmosphere is damp, the moisture would be absorbed by it ; mildew would be engendered, and the bulbs destroyed.

CASUALTIES.—The Tulip being subject to the ravages of the wire worm, and suffering also from grubs in spring, it is of importance to have a reserve bed in order to replace those which are thus destroyed in the principal bed.

FORCING THE TULIP.—Early varieties, such as Duc van Thol, may readily be forced either in pots or glasses. When attempted in the former, the pots should be narrow and deep, filled with sandy loam, and set in a greenhouse, when they will flower at the same time as the Hyacinth. When in glasses, it is necessary to change the water once or twice a week, or by its becoming fetid the bulb will be injured.

COMPOST.—Yellow loam, if heavy, two barrowfuls; if light, three barrowfuls; one barrowful each of well decomposed horse manure and washed sand; and if at hand a small quantity of soot and leaf mould. These should be mixed together nine months, at least, before the compost is wanted, and should be frequently turned in the interval.

CHARACTERISTICS OF A FINE TULIP.—It is necessary that the stem should be strong, elastic, and erect, and more than twenty four inches high. The flower large, and composed of six petals; proceeding horizontally from their base, and turning up so as to resemble a goblet, round at the bottom, and rather wider at the top. The three outer petals must be larger than the inner three, and broader at the bottom, they must all be perfectly entire at the edges, without notch or indenture; the top of each is required to be broad and well rounded. The bottom of the cup must be either a clear yellow or white; and each petal must be enriched with one

or more stripes of various colours up the middle, quite distinct at the edge, but fading away into feathered or pencilled points before reaching the bottom, which should always be free from stain.

And now we have presented our readers with portraits of flowers of all seasons—of those which bloom in all their beauty when Earth may have put on her snowy mantle; of others which delight in the life-restoring warmth of Spring, when she seems to be awakening from a torpid sleep; of those whose richly-coloured petals and fragrant odours charm the senses throughout the glowing heat of Summer; and those again that remain with us when Nature is preparing for her periodical rest.

May those who read this book see many revolving years; and as each succession of flowers reminds them of the advancing seasons, so may the comparison of the present with the past show to them an accession of contentment and of happiness!

THE END.

B. CLARKE, Printer, Silver Street Falcon Square London.

A LIST OF CHOICE VARIETIES OF TULIPS

SELECTED FROM THE

CATALOGUE OF MR. GROOM'S SPLENDID COLLECTION.

FINE INCOMPARABLE VERPORTS.

Have very handsome cups, with
White Grounds broken with
shining brown.

Bienfaisante.

Daphne.

Helena.

La Plus Belle.

Mentor.

Tendresse.

FINE CHERRY AND ROSE.

Have White Grounds broken
with different shades of the
above named colours.

Aglaia.

Ariadne, (Groom's)

Bacchus, No. 1.

Brulante Eclatante.

Beteral's Brulante.

Eclatante.

Catalani.

Cerise à Belle Forme, extra

Comte de Belcarras.

Countess of Wilton, (Groom's).

— Blessington.

Duchess of Newcastle.

— Sutherland, (Groom's).

— of Kent, (Strong's).

— St. Albans.

Emily.

Grisi.

Juliana.

Lac, true.

Lady Crewe.

— Peel, (Groom's).

Lady Douro.

Lachesis.

La Sublime.

Ma Delice.

Manon

Persiani.

Ponceau Tres Blanc.

— ditto Dutch.

Princess Sophia of Gloucester.

Pucelle d'Orleans.

Rosalia.

Rose Augusta.

— Brillante.

— Camuse, rectified.

— — — — de Craiz.

— Mignonne.

— Premiere.

— Quarto, rectified.

Thalestris.

Venus.

Walworth.

FINE BYBLCEMENS.

Have White Grounds broken
with different shades of Purple.

Ambassadeur d'Hollande.

Angelica Kauffman.

Bijou des Amateurs.

Bloemart.

Camorine,

Captain.

Claude.

Colossus.

Cynthia.

David Pourpre.

Desiderata.

Duke of Buccleugh, (Groom's).

Euclide.

Gadsby's Magnificent.

Grand Monarque.

GROOM'S KING WILLIAM IV.

Homer, (Groom's)

Imperatrix Florum.

King George IV.

La Transparente

— Virginité.

Le Brun.

LIST OF CHOICE TULPS.

Lord Stanley.
 Lewald.
 Lord Hawkesbury.
 Louis XVI. extra.
 Louis XVI.
 Lady Sale.
 La Fidelle.
 Michael Angelo.
 Malibran.
 Maid of Athens.
 Naxara.
 Pandora.
 Parmegiano.
 Queen Adelaide, (Groom's).
 —— Charlotte.
 Saint Cecilia.
 Superbe en Noir.
 Taglioni, (Groom's).
 Thalia.
 Titania.
 Transparent Noir.
 Victoria Regina, (Groom's).
 Violet Alexandr.
 —— Supreme.
 Walker's Beauty.

FINE BIZARRE.

Have various colours on Yellow
Grounds.

Aeneas.
 Albano.
 Albion.
 Andrews' George IV.
 Apelles.
 Bolivar, (Lawrence's).
 Carlo Dolci.
 Catafalque.

Cenotaphium.
 Commodore Napier.
 Cyclops.
 Duke of Devonshire.
 Duke of Norfolk, (Groom's).
 Duke of Sutherland, (Groom's).
 Earl of Lincoln, (Groom's).
 Earl Douglas.
 Everard.
 Fabius.
 Garrick.
 Glenco.
 Grand Duke Alexander.
 Leonardo da Vinci.
 Leonatus Posthumus.
 Lord John Russell, (Groom's).
 Marcellus.
 Marshal Soult, (Groom's)
 Milo Superbe.
 Nourri Effendi.
 Optimus.
 Paul Potter.
 Pompe Funebre.
 Prince of the Netherlands.
 Prince Albert, (Groom's).
 Rachel Ruche.
 Rembrandt, (Groom's).
 Rubini, (Groom's).
 Sheet Anchor.
 Shakspere.
 Sir E. Codrington.
 Sir R. Peel, (Groom's).
 Titian's, (Rutley).
 Ulysses.
 Warsaw.
 William IV.
 Wilmer's Duke of York.

POPULAR FLOWERS:

THEIR CULTIVATION,

PROPAGATION, AND GENERAL TREATMENT

In all Seasons.

WITH

LISTS OF CHOICE AND FAVOURITE VARIETIES.

ILLUSTRATED BY COLOURED PORTRAITS.

SECOND SERIES.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH.

M D C C C X L I V.

LONDON :
**THOMAS HARRILD, PRINTER, SILVER STREET,
FALCON SQUARE.**

ADVERTISEMENT.

ALTHOUGH all the subjects treated of in the second series of Popular Flowers cannot claim to be so universally known as those contained in the first series, and consequently do not number so large a body of admirers, yet if we may judge from the continued uniform sale of the different parts, the later flowers are duly appreciated and admired by the subscribers. We rejoice in this because it is a tacit approval of the selection made ; and shows that the Editor has not been altogether unsuccessful in his undertaking.

London, Nov. 28, 1844.

List of Plates.

	PAGE
AMARYLLIS <i>A. vittata</i>	49
BALSAM	85
CALCEOLARIA <i>Lady Constable</i>	61
CINERARIA <i>Grand Duke</i>	37
HOLLYHOCK	9
PETUNIA <i>Splendens</i>	95
PHLOX <i>Broughtonii</i>	105
PINK <i>Well's Superb</i>	1
POLYANTHUS <i>Squire Ray</i>	25
RANUNCULUS <i>Sir J. de Græme</i>	13
VERBENA <i>Excelsa</i>	73

HYACINTHS GROWN IN WATER.

MR. HUNT, of Pimlico, whose improved Flower Pots and Saucers we noticed in the former series of this work, has just introduced a very pretty Pot for the purpose of growing Hyacinths in water. It possesses several advantages which glasses have not. Being opaque it is unnecessary to place the bulbs in the dark until the roots have grown, which is required when a glass is used. The cup, in which the bulb is to be placed, is perforated in three place near the base, so that the bulb can never be injured by excess of water. Moreover these perforations are made to serve a double purpose, by passing a piece of stout wire through each hole, and inserting the end in a socket provided on the outside of the pot, an adequate support, for the stem and flower is at once supplied without the aid of the cumbrous stands hitherto used. These pots are at once more useful, more ornamental, and more economical than glasses, and bid fair to supersede them altogether.

INDEX.

PAGE.	PAGE.		
A MARYLLIS.—Introduction	49	Watering	46
General Treatment of Amaryllis	50	Insects	47
<i>Amaryllis Vittata (Striped Amaryllis)</i>	51	Select List of Cenerarias....	48
<i>Amaryllis Belladonna (Fair Lady Amaryllis)</i>	53	H OLLYHOCK.—Introduction	118
<i>Amaryllis Formosissima (Jacobaea Lily)</i>	54	Seed Collecting	120
<i>Amaryllis Reginæ (Mexican Lily)</i>	54	Seed Sowing, &c.	121
<i>Amaryllis Banksiana</i>	55	Soil.....	121
<i>Galanthus Nivalis (Snowdrop)</i>	56	Insects	122
<i>Crinum</i>	57	P ETUNIA.—Introduction....	95
<i>Cyrtanthes</i>	58	Propagation by Seed.....	100
<i>Brunswigia</i>	58	By Cuttings.....	101
<i>Narcissus</i>	59	Winter Treatment.....	101
B ALSAM.—Introduction	85	Spring Treatment.....	101
General Remarks	87	Situation	102
Seed, and the proper time for Sowing it.....	87	Planting Out	103
Treatment of Seedlings	88	Compost	104
Large Plants and Flowers ..	89	Mr. Hedge's Treatment	104
Drainage	90	P HLOX.—Introduction	105
Light, Air, and Water	91	Propagation by Seed.....	107
Blooming	91	By Cuttings.....	108
Balsams in the Open Ground.	92	By Division of the Roots....	108
Experiments upon Balsams..	92	General Treatment	108
Mr. M'Elroy's Treatment of the Balsam	93	Soil.....	108
C ALCEOARIA.—Introduction....	61	Situation	108
Propagation by Seed.....	65	Planting Out	109
By Cuttings.....	66	Watering	112
By Division of the Roots....	66	Drainage	113
Situation	67	Phloxes in Pots	113
Soil	67	Winter Protection	113
Repotting	67	<i>Phlox Drummondii</i>	119
Watering	68	Cultivation of ditto	119
Treatment when Flowering.	68	P INK.—Introductory Remarks..	1
Treatment after Flowering ..	69	Propagation by Seed.....	3
Winter Treatment	71	Treatment of Seedlings	4
Insects	72	Pipings or Cuttings	6
C INERARIA.—Introduction....	37	Preparation of Pink Beds ..	8
Propagation by Seed.....	40	Treatment of Bedded Pinks..	8
By Cuttings.	40	Attributes of a perfect Pink..	10
By Division of the Roots ...	41	Insects	11
Cineraria in Pots.....	42	Careful and Careless Cultivation	11
Cineraria in the Open Ground	43	P OLYANTHUS.—Introduction...	22
Treatment after Blooming...	43	Propagation by Seed.....	25
Potting.....	45	By Division of the Roots....	27
		Situation	29
		Polyanthus Bed	29
		Planting	30
		Polyanthus in Pots	30
		Blooming.....	31
		Seed Saving.....	33

INDEX.

PAGE.	PAGE.		
Standard of a perfect Polyanthus	33	Hybridizing for New Varieties.....	22
Compost	33	Preservation of the Seed.....	23
Insects Injurious to the Polyanthus	34	Taking Up and Storing the Tubers	23
Chinese Primrose	35	The Criterion of a perfect Ranunculus	24
List of Choice Polyanthuses	37		
RANUNCULUS. —Introduction.....	13	VERBENA. —Introduction	73
Propagation by Seed.....	15	General Observations	76
After Treatment of Seedlings	16	Propagation by Seed.....	77
By Offsets.....	17	By Cuttings.....	77
Aspect	17	Self Propagation	78
Soil.....	17	Soil.....	79
Preparation of the Ranunculus Bed	18	Drainage	79
The Planting Season	19	Spring Treatment for Verbenas.....	80
Planting	19	Training for Blooming.....	80
Perpetual Ranunculus Beds.....	20	Verbena in Beds.....	81
Treatment of Blooming Plants.....	20	Treatment of Autumnal Rooted Cuttings.....	81
Watering Growing Plants ..	21	Vervain.....	82



POPULAR FLOWERS.

T H E P I N K;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

TO WHICH IS ADDED,

A SELECT LIST OF CHOICE PLANTS.

WITH A COLOURED FRONTISPICE.

SECOND EDITION.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH ; S. J. MACHEN, DUBLIN.

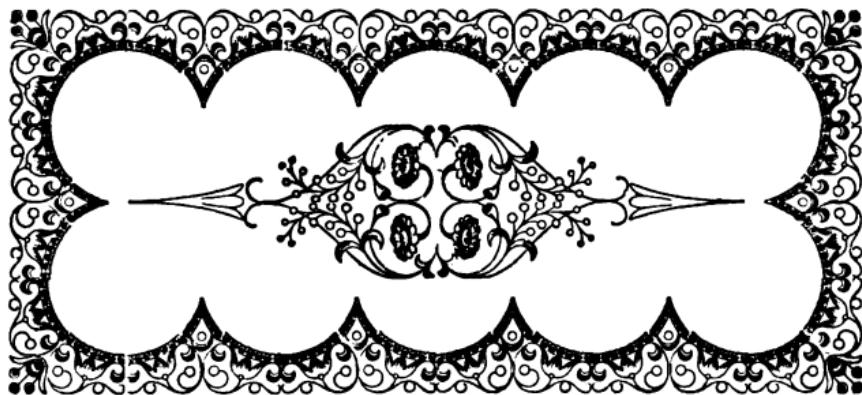
1844.

Price Sixpence.

CONTENTS.

INTRODUCTORY REMARKS	1
PROPAGATION :	
BY SEED	3
TREATMENT OF SEEDLINGS	4
PIPINGS OR CUTTINGS	6
PREPARATION OF PINK BEDS	8
TREATMENT OF BEDDED PINKS	ib.
ATTRIBUTES OF A PERFECT PINK	10
INSECTS	11
CAREFUL AND CARELESS CULTIVATION	ib.

* * * *The Frontispiece is a Portrait of "Well's's Superb."*



THE PINK.

INTRODUCTORY REMARKS.



HERE is not a flower in the gardens of England possessing so many charms as the Pink, nor one that commands so much admiration. Rich and poor alike delight in the beauties of its form and colours, and in the exquisite fragrance it imparts; and wherever the love of nature, in her simplicity, is the ruling principle in the management of a garden, there we find the Pink; not tended, it is true, with the care that florists commend, but yet, studded here and there in patches on the bed or in the border, its bluish green and healthy foliage affording a pleasing variety in the winter season, and in the summer its pretty flowers blooming in constant succession, and filling the air with delicious odours, it gratifies us, perhaps the more, because it is Nature's own. Where is the cottage garden in the innumerable villages of England that

boasts not its Pinks? Nay, we would not hesitate to assert that no individual in any class of society would think his flower-garden furnished, though many others might be lacking, unless the Pink were among the number.

For lovelier things were never seen,
Than clustered Pinks on grass plots green;
Or blooming in the neat trimm'd bed,
By dews of heaven well nurtur'd.

It is not a very common practice to see Pinks in clusters on the lawn, but we could wish that it were more general; it may be easily accomplished by removing the natural soil in small patches, of any form according to fancy, and by replacing it with prepared soil, and planting about half a dozen plants in each little bed, which as they grow will assume the appearance of proceeding from one root; the grass of the Pink contrasting agreeably with the yellow tinge of the grass on the lawn; and the flowers when in bloom forming an agreeable variety to the more regular beds in the garden.

By many persons the Pink is supposed to be descended from the Carnation; others, believe it to be produced from some smaller growing kinds of Dianthus; however this may be, florists consider them distinct and treat them as such.

There are six species of Dianthus said to be indigenous to this country, and there are some to be found as native plants in all warm and temperate climates; but to attempt to discover from what species the varieties now in cultivation have been derived were as futile as unprofitable. The flowers of our native species are chiefly selfs,

white, rose-coloured, or purple, and these by the art of the florist have been crossed, among themselves and with foreign species, so as to render the Pink as charming to the eye as its fragrance is agreeable to the sense of smell. A French poet, Dubos, was so enchanted with its perfume as to apostrophize the Pink as follows:—

Aimable Œillet, c'est ton haleine
 Qui charme et pénètre nos sens ;
 C'est toi qui verses dans la plaine,
 Ces parfums doux et ravissans.
 Les esprits embaumés qu'exhale
 La rose fraîche et matinale
 Pour nous sont moins délicieux.
 Et ton odeur, suave et pure,
 Est un encens que la nature
 Elève en tribnt vers les cieux.

The Pink is an evergreen herbaceous plant belonging to the grand natural division Dicotyledonæ and the order Caryophylleæ; in the artificial system of Linnæus, we find it in the tenth order, Decandria, and the second class, Digynia.

PROPAGATION.—The Pink is propagated in two ways; by seed for the purpose of procuring new varieties and by pipings or cuttings to perpetuate the choicest kinds already in cultivation.

BY SEED.—It is by this mode alone that new varieties can be obtained, and there is very little certainty even in this, unless the seed has been gathered from flowers artificially cross impregnated. The seed being procured it must be sown in seed pans or large pots about the middle of April, which season experience has taught us

is the best. The vessels in which they are to be sown must be filled with a rich light compost, consisting of equal parts of leaf mould, fresh yellow loam, and thoroughly decomposed old hot bed dung, all well incorporated and sifted together; and then the seeds being scattered evenly over the top, they will require to be gently pressed into the surface, and covered with a thin sifting of the compost finely pulverized. To complete the operation dip a hard clothes brush in water, and having shaken the brnsh, hold it in the left hand with the bristles upward, and draw the fingers of the right hand over them when the remaining water will be thrown over the seed pans like dew, the compost will be uniformly moistened and the germination of the seeds promoted thereby. Let the pans be set at the back of a cold frame if you have one; if not under a hand-glass, or against a south wall, where they can be protected from heavy rain, will answer the purpose equally well; but in either of these last situations they must be at times shaded from the meridian sun. If the surface of the soil in the pans should become dry, whether before or after the appearance of the seedlings, water must be given in moderation.

TREATMENT OF SEEDLINGS.—To the enthusiastic lover of flowers the expected germination of seeds and the development of the seed leaves is a period of intense interest. Daily, nay almost hourly, are the magic spots, where seeds are sown, closely inspected in the hope that some faint symptom of vegetable life may be perceptible, and when the younglings really become visible how narrowly are their unfolding leaves watched and counted

from day to day until the company becomes too great for enumeration. Then the after treatment is the source of never ceasing interest; so soon as the little pinks have put forth two or three pair of leaves, a suitable bed should be got ready for them in an open airy spot, which must be trenched or dug deeply. The bed should be from three feet and a half to four feet wide, and of the proper length required by the number of your seedlings; the surface of the bed being rounded a little so that the centre may be higher than the two edges, and over this, put a layer of compost, formed of loam, rotten dung, and leaf mould, six inches thick, and so that the whole bed may be that much above the level of the surrounding ground. The bed being thus formed of fine compost and carefully made smooth, set the plants in rows nine or ten inches apart, and then cover the surface with old hot bed dung about an inch thick. This mulching serves to keep the ground cool, and the young plants are nourished and strengthened by the juices washed down by the rain. In this bed they are allowed to remain and bloom, when their respective merits are revealed; any choice ones being set aside for select culture, the second best transferred to the border, and the rest thrown away as worthless.

The attempt to raise new varieties is of course often fruitless; but should only one or two very superior sorts be thus originated, the professional florist is amply repaid for his trouble, not only by the pecuniary profit derivable therefrom, but by the reputation he acquires in common with all men who are successful in their pursuits, and which puts him prominently in advance of his com-

petitors ; while the amateur is sufficiently compensated in the self gratulation which he may justly appropriate, and in the pleasure he feels in witnessing the admiration bestowed upon his favourites by his friends and acquaintance.

PIPINGS OR CUTTINGS.—This mode of propagation, (for they are scarcely modes) is used for the perpetuation of standard favourites of the Pink, for such there are though as a florist's flower it has in some degree been thrown into the shade by larger plants and more showy flowers ; but this circumstance in its history, is we think only for a season ; it has charms which will ever render it a cherished flower, and we have no fear that it will go out of cultivation, but on the contrary good ground for believing that it will shortly regain its station in the floral fashionable world, through the praiseworthy exertions of a few florists who have succeeded in obtaining some very fine varieties within the last few years.

The parts of the parent plants whence pipings are selected, are the side branches, and at the proper season, from the last week in June to the middle of July, they are detached therefrom by holding the lower part of the branch firmly in the left hand, and then taking hold of the extreme point of the shoot with the thumb and forefinger of the right, by which it is gently drawn outwards, and the point is thus separated at the second or third joint without irregular fracture. When the desired quantity is thus detached from the old plants, the terminal leaves of the shoots are shortened and then they are inserted rather closely together, in light sandy compost previously pre-

pared in a shaded situation; they are then watered through a very fine rose watering can to settle the soil, and when the leaves are dry, protected by a hand-glass, which is pressed into the soil to exclude the air. In favourable seasons the majority of the pipings soon send out roots, and when they have put forth a few new leaves, they are bedded out, and treated as previously directed for seedlings. Some florists cut the shoot away from the old plant, and then detach the two leaves forming the sheath in which the joint is inserted.

For performing an operation like the one above described, it can scarcely be necessary to suggest that the cool of the evening is the best time of the day, and, in addition to this precaution, there are those who, to prevent the evaporation of the sap from the tender shoots first detached, place them in a pan of water until they are inserted in the bed prepared for them.

A Correspondent of the *Gardeners' Chronicle* recommends the following mode of making and planting pipings, as being more likely to succeed than the usual method in dry weather:—

“ The terminal joint alone is retained, the piping is pared close to the joint, and the leaves are pared off quite close to the bud. The cutting is thus a mere eye or growing point, and having but little surface to evaporate, it seldom fails, if the situation is warm, to keep up the excitement of growth; vitality is most active in the terminal joint, and the roots are soon protruded, the activity of growth making up for the want of a reservoir of food in the stem. If well watered and covered with a hand-glass, they need no shading; the

greater the force of the sun the better ; and this method is generally more successful than the other, which often fails in dry weather."

PREPARATION OF PINK BEDS.—Mr. Hogg, who was a very successful grower of this flower, in a communication to the Horticultural Society, which was published in their Transactions, recommends the forming of the beds in October, but he has elsewhere stated that September is better. The centre of the bed should be higher than the sides, and the edges should be six inches higher than the walks, that the heavy rains of winter may pass off. The soil should consist of a mixture of loam, common black garden mould, road grit, washed before being used, a quantity of rotten horse dung, well incorporated with a good bottom of dung from cucumber pits. When the bed is formed, the plants should be put in about seven inches apart. If the planting be delayed beyond the middle of October, the bloom is never so good, and the laced varieties very often become plain.

TREATMENT OF BEDDED PINKS.—After your Pinks are planted out, they will require continual attention, and though they are hardy, they will need protection from severe frost, by means of matting. But this must never be allowed to remain in mild weather, or the plants will be seriously injured, probably become mildewed, and "damp off," as it is technically termed. Early in May after you have well weeded the bed and lightly hoed the surface, top dress it with well rotted dung, about an inch thick, passing it through a coarse sieve.

From a month to six weeks before blooming, thin out

carefully the weaker shoots of strong plants, that the leading stems may be strengthened and nourished by the entire juices of the plant.

The stems of the weaker plants will probably need training to sticks, to which they must be carefully tied with new bass; after this they must be daily examined; for, as the stem increases in length, the joint which was below the ligature when first applied is forced upwards, and if not eased in time, the stem will snap by the resistance offered to its upward growth by the instrument intended for its support. To prevent such an accident, those who cannot give daily attention to their Pinks should tie up the whole plant, when the bass, if properly fixed, will rise with the growth of the plant.

When the pods are swelling and showing bloom, water freely between the rows with the pipe of the water-pot, for if your plants lack moisture at this stage of their growth, when the weather is generally hot, and the ground dry, the flowers appear to languish, and never attain to that degree of perfection they do if the beds are kept moist and cool. The top dressing previously directed prevents the soil from cracking, while the rains and the water from the pot, percolating through it, convey gradually a wholesome nourishment to the roots.

If you are anxious to obtain large flowers in preference to an abundance of small flowers, you must reduce the number of buds, so that not more than three are allowed to remain on each plant, and these must be girded and carded in good time, if you wish them to flower in all the perfection of which they are capable. Pinks being very much disposed to burst the calyx irregularly, the petals

obtruding themselves through the divisions of the flower cup half way down the bud, and generally more on one side than the other, instead of gradually opening it at the point, and unfolding themselves in regular succession, the consequence is, that without the precaution of girding and carding, pinks are nearly always irregular in their outline. The operations thus denominated are performed as follows:—When the calyx has swollen so that any one division appears to be opening, tie round the middle of the pod a narrow strip of matting, sufficiently tight to insure its retaining its position; this will strengthen the sides of the calyx, and the petals finding resistance there, will force open the point of the bud: and as they begin thus to unfold, in what is certainly the natural mode, carding is resorted to, to perfect the work so commenced. A round piece of card board, rather larger in diameter than the flower is expected to be, is prepared by cutting a circular hole in the centre, sufficiently large to embrace the pod just behind the petals, and yet so small as to be firmly kept in its position. The periphery of the card is cut through in one place to allow of its being fixed on the pod, and as the flower expands the petals are carefully spread out upon it.

To preserve flowers in their beauty for any length of time, it is necessary that they should be sheltered from rain, and shaded from the sun, by fixing an oiled paper as near the shape of an umbrella as possible, to the top of a stick, at a proper height, so as to form both a *parapluie* and a *parasol*.

ATTRIBUTES OF A PERFECT PINK.—The standard by

which the quality of a flower is fixed is of course arbitrary, but when it was determined to give prizes for the cultivation of the finest flowers, it was absolutely necessary to adopt some rules whereby a flower should be judged. To be esteemed a fine Pink it must be at least two inches and a half in diameter ; the petals large, broad, and substantial, and without serrature at the edges ; or if fringed, the indentions must be very regular, and extremely fine. The broadest part of the petal must be pure white, and entirely distinct from the middle coloured part or eye. The eye should occupy nearly one half of the disc, be of a bright or dark rich crimson or purple, and of a velvety texture ; the darker it is the more it is admired. If the tint of the eye is continued round the outer edge of the petals, well defined and regular, without encroaching on the white part, the flower is said to be "laced," and as such greatly admired. The stem must be strong and erect, and about twelve inches high ; in fact, the nearer the pink approaches to the stature and form of the carnation the more it is esteemed.

INSECTS.—Pinks suffer very much from the ravages of slugs and earwigs, the former must be destroyed by lime water, and by hand on dewy evenings and after rain ; the latter, and also woodlice, must be caught in traps and killed ; the common method is to fill small flower-pots with hay, sprinkled with sugared water, and to place them in an inverted position on the tops of the flower sticks, when great numbers will be attracted by the bait, and are thus readily caught and killed.

CAREFUL AND CARELESS CULTIVATION.—The effect of

careful over that of careless cultivation was never, perhaps, more clearly evinced than in an instance in my own neighbourhood this season. A friend of mine, who had received from me all the superior varieties of Pinks, planted them in a bed in the common way; and though they were pretty healthy, and sent forth sufficient blooms, they presented only a sort of uniform sameness, undistinguished by the lacings peculiar to each, which were so manifest in mine; a common observer would have said that they were Pinks altogether different from mine.—*Hogg.*



A SELECT LIST OF PINKS.

Those marked B. are from the List of Mr. Brown, of Slough; C. or with no letter annexed to them, Mr. Catleugh's, Chelsea; W. Mr. Willmer's, Sunbury Nursery.

Admiral Codrington	Dalton's Lancaster Lass
Agatt's Prince Albert	Davey's Latorch
Agripina	Dry's Earl of Uxbridge, B C
Ainsworth's Omega, B C W	— No. 2
Aker's Lord Brougham, W	— No. 4
Alderman's Helen	Duke of Bedford, W
Attwell's Prince George of Cambridge	Esh Blush
Baco's Early	Foster's William the Fourth
Barnard's Bexley Hero, W	Garrett's Alpha, B W
Barrett's Conqueror, B C W	Gower's Eliza, W
Beauty of Ware	Hardstones' Man of Kent, W
Beauty of Woodhouse	— Prince Albert, B W
Belgray's George the Fourth	— Independent, W
Blagg's Duchess of Cornwall	Halstone's Wonder
Bray's George the Fourth	Harris' Conqueror
Brook's Matchless	Harris' Emma
— Model, B	Henbrey's Diamond, B
— Eclipse, B W	Henham Lass
— Acme, B W	Hibbert's Diana
Bunkcler's Queen Victoria, B W	Hibbert's Victoria
— Eclipse, W	Hine's Queen
— Prince Albert, W	Hodge's Gem, W
— Mary Ann, W	— Juno
— Lady Ann Coke, W	— Maria
— Elizabeth, W	— Mars, W
Calcott's Little Wonder, W	— No. 166
— No. 4	— Syrus
Church's Maria, B	Hogg's Anna Bullen
— Navigator, B	Holmes' Coronation, C W
— Rosanna, B W	Hopkin's Duchess of Florence
Clarke's Beauty	— John Hopkins
Cooper's Great Western	Rose
— King Alfred	Hullmans' Beauty
— Medora	Humber's Champion
— Queen Victoria	Ibbett's Capt. Dean Dundas, W
Collis's Majestic, B W	Illman's Eliza
Cousin's Little Wonder, W	Jag's Wellington
Cowdery's Lord Lyttleton, W	Jarvis' Glorieuse
— Calthorpe, W	Jelf's Maryan, B W
Creed's President, B	Keen's No. 4
	Kenworth's George the Fourth

A SELECT LIST OF PINKS.

Keynes's Alpha, <i>B</i>	Royal Standard
—— Col. Baker, <i>B W</i>	Rushton's Admiral Codrington, <i>W</i>
—— Ne plus ultra, <i>B W</i>	Seale's Queen Victoria
Kirtland's Dr. Daubeney, <i>W</i>	Shakspere
—— Gay Lad, <i>W</i>	Smith's Dr. Coke, <i>B</i>
—— Attila, <i>W</i>	Stevens' Waterloo
—— Gauntlet	Strong's King
Lady Acland	Sutton's Wellington
Lady Flora, <i>W</i>	Taylor's High Admiral
Lady Flora Hastings, <i>B</i>	Thurtles Extra, No. 22, <i>W</i>
Lady Woodhouse	23, <i>W</i>
Luteman's Grenadier	Tom of Lincoln
Miss Foote	Turner's George the Fourth
Miss Hopkins	Vicar of Bray
Norman's Benjamin, <i>W</i>	Wallace's Unique, <i>W</i>
—— Defiance, <i>B</i>	Weedon's Queen Victoria, <i>B W</i>
—— Henry, <i>W</i>	Weeden's Seedling
—— Duke of Wellington, <i>W</i>	Wheeler's Defiance
—— Henry Creed, <i>B</i>	White's Warden, <i>B</i>
—— Hero	Willmer's Tom Davey, <i>B</i>
—— Rainbow	—— Miss Jane
Omega	—— Prince of Wales, <i>W</i>
One in the Ring	—— Sarah, <i>W</i>
Pelman's Defiance	—— Elizabeth, <i>W</i>
Pigot's Earl of Cheltenham, <i>C W</i>	—— Queen Victoria, <i>B W</i>
Pride of England	—— Duchess of Kent, <i>W</i>
Prior's Miss Blackstone, <i>B W</i>	—— Queen of Purples, <i>W</i>
Randle's Beauty of Carshalton, <i>W</i>	—— No. 72, <i>W</i>
Robinson's Blackheath Hero, <i>W</i>	—— 73, <i>W</i>
—— Cleopatra,	—— 74, <i>W</i>
—— Prince Albert, <i>W</i>	—— 75, <i>W</i>
—— Lord Byron, <i>W</i>	Wilson's Dame Trot, <i>B W</i>
	—— Jack, <i>W</i>



Digitized by Google
Printed by Houlston & Stoneman, Paternoster Row, March 1784.

POPULAR FLOWERS.

THE RANUNCULUS;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH

DIRECTIONS FOR TAKING UP AND PRESERVING THE TUBERS;

ALSO

A LIST OF FAVOURITE VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH ; S. J. MACHEN, DUBLIN.

1844.

Price — Sixpence.

CONTENTS.

INTRODUCTION	13
PROPAGATION :	
BY SEED	15
AFTER TREATMENT OF SEEDLINGS	16
BY OFFSETS	17
ASPECT	ib.
SOIL	ib.
PREPARATION OF THE RANUNCULUS BED	18
THE PLANTING SEASON	19
PLANTING	ib.
PERPETUAL RANUNCULUS BEDS	20
TREATMENT OF BLOOMING PLANTS	ib.
WATERING GROWING PLANTS	21
HYBRIDIZING FOR NEW VARIETIES	22
PRESERVATION OF THE SEED	23
TAKING UP AND STORING THE TUBERS	ib.
THE CRITERION OF A PERFECT RANUNCULUS	24



THE RANUNCULUS.

INTRODUCTION.

From the soft wing of vernal breezes shed,
Anemones, Auriculas, enriched
With shining meal o'er all their velvet leaves ;
And full Ranunculus of glowing red.

THOMSON.



THE Ranunculus is one of the most popular flowers which has attained the rank of a florist's flower ; it is universally admired, not more so than its merits demand, but yet it is not commonly cultivated, and this general neglect, to speak of flower growers at large, is not to be attributed to any real practical difficulty in its treatment, but rather to the supposed uncertainty of success ; we say supposed uncertainty, because, if a little care be exercised in the management of this flower, it will soon be found that the difficulties in its treatment and the uncertainty of its rewarding the trouble bestowed upon it existed only in the imagination.

The Asiatic Ranunculus which is the species cultivated in our gardens, was originally brought from the Levant, and is said to have been much prized, in the imperial gardens of the seraglio at Constantinople, for a long period anterior to its importation into this country, which is believed to have been in the reign of Queen Elizabeth ; for Gerard says, that many were brought from Asia in his time, and flourished as well in the gardens of "merrie England" as in their indigenous soil.

The cultivation of the Ranunculus is a source of much emolument to Dutch florists, who export roots to all parts of the continent. The varieties of this flower are almost innumerable, for no plant sports, as it is termed, so much as it does. Seedlings seldom yield two kinds alike, or any that bear a very close resemblance to the varieties previously in existence. But we are told that a kind once obtained may by propagating through offsets be perpetuated, true to its original characteristics for twenty years and upwards.

Among all the flowers that deck the parterre or grace the conservatory, we do not at this moment find among our reminiscences one that will bear comparison with the Ranunculus for variety, richness, and delicacy of colour combined. We can almost fancy that it was the flower that inspired Thomson with that beautiful specimen of poetic eloquence, when he asks—

" Who can paint
Like Nature ? Can imagination boast,
Amid its gay creation, hues like hers ?
And can it mix them with that matchless skill,
And lose them in each other, as appears
In every bud that blows ? If fancy then

Unequal fails beneath the pleasing task,'
 Ah, what shall language do? ah, where find words,
 Tinged with so many colours?"

The root of the Ranunculus is a tuber throwing out a fascicle of fibres, by which it absorbs nourishment from the soil; it is perennial in its duration; the leaves are ternate or binate, that is, divided into threes, or into threes twice over. In the artificial system of Linnæus it stands in the thirteenth class (Polyandria) and the sixth order (Polygynia). In the natural system it arranges itself in the grand division, Dicotyledones; and is placed in the order Ranunculaceæ, which contains several of our favourite garden flowers.

PROPAGATION.—This is performed in two ways, namely, by seed for the purpose of obtaining new varieties, and by offsets from the old and well established varieties, to keep up a succession of healthy plants.

BY SEED.—The proper season for sowing Ranunculus seed is January, and the operation requires considerable delicacy and management.

It is desirable that the seed should be sown in a shallow frame; the soil being taken out some time previously, to the depth of three feet, and spread thinly upon the ground until it has been perfectly frozen through; by this means the earth and wire-worm will be entirely destroyed.

When the pit is again filled with this soil, which should be thrown in in a frozen state, it must be allowed to remain till the whole mass has become thawed, so that it does not occupy more than the space it did before or very

little more ; then the surface must be rendered perfectly smooth, and the seeds sown upon it with the utmost attainable regularity, and thick enough to cover it over. The sash must be instantly placed over them, and be kept closed until the seeds begin to swell and soften, when a little of the lightest earth must be carefully sifted over the bed through a fine wire sieve, but not so much as to cover it ; and this sifting of light earth upon the bed must be repeated once or twice a week, till the greater part of the seed is invisible. It is asserted that those seeds which become covered with earth thicker than a half crown piece never germinate.

The seed-bed must be kept moderately moist by watering through a finely perforated-rose-fitted can, so that it may fall gently and evenly over the bed. Soft water is to be preferred, and should be previously exposed to the sun, to ameliorate the temperature.

Those amateurs who have no frame, may with great care succeed in raising plants from seed by sowing them in shallow tubs, with thorough drainage, filled with the soil recommended for beds, slightly covering them at the time of sowing. The tubs must then be placed under a north wall, and sheltered from heavy rains and frost. In other respects, treat them as above directed.

AFTER TREATMENT OF SEEDLINGS.—When the young plants become visible, it is desirable that the surface of the bed should be slightly disturbed by means of a small pointed instrument, so as to admit a little air, and allow the seedlings to make their way. This requires great care, for if negligently performed, many plants may be de-

stroyed by breaking off the fibres, or extracting the roots quite out of the ground. When the heat of the sun's rays is great, a little fresh air must be admitted under the glasses, and the frame shaded with mats ; but at all other times the glass must be kept close. When the plants are all up, and the interior pair of leaves is seen, the quantity of air must be increased, and water supplied as needed ; but should there be warm showers of fine rain, it is preferable to admit them than to water by artificial means. This treatment is to be continued until the leaves become quite dry and brown, when they may be taken up in the way recommended for the other tubers. Those roots that have formed two or three claws will flower strongly in the succeeding summer if properly treated.

By OFFSETS.—The offsets by which established varieties are perpetually propagated, must be separated from the parent tuber about the end of summer, and be preserved in a dry place in bags or boxes until the month of October, when they may be planted from six to eight inches apart, and six rows in a bed. They will require protection from frost in the winter by means of hoops and matting, and in the spring they must be kept perfectly free from weeds. When the season's growth is over they may be removed, and afterwards treated as other tubers.

ASPECT.—The *Ranunculus* thrives best when planted on a bed in an open situation exposed to the east ; and protected from violent winds.

SOIL.—Maddock says, that a fresh, strong, rich, loamy

earth is to be preferred for the Ranunculus. Hogg says that fresh loam to which has been added a considerable portion of well rotted cow or horse dung is better.

PREPARATION OF THE RANUNCULUS BED.—The root fibres of the Ranunculus do not seek for food at the surface of the soil, but strike downwards to a considerable depth, unless obstructed by the hardness or compactness of the subsoil. Having discovered this tendency of the roots, florists soon saw how greatly the health of their plants, and, consequently, the beauty of the flowers might be promoted by accommodating their culture to the natural habit of the plant. Hence, in preparing a bed for this flower, the natural soil requires to be dug out, well turned and pulverised, to the depth of two feet at least; and, if in a situation where the ground is loamy, and not under previous cultivation for horticultural purposes, it will be desirable, after having been thoroughly dug, to cover the bed with a layer of well decomposed dung from an old cucumber bed, if procurable; this should be done in the autumn, and after remaining in that state for a couple of months, let it be dug or trenched in to the depth of twelve inches. If the contents of the bed be now loose and friable, it will be in good condition when the spring planting season arrives; if, on the other hand, the soil be close, and turn up in clumps, throw the surface into ridges, that it may be exposed to the pulverising influence of frost. If after all this, the earth cakes on the surface, a quantity of sand well incorporated with it will materially improve it. A bed carefully prepared will do very well for three successive crops by an annual autumnal dressing of manure.

THE PLANTING SEASON.—In a communication made by the Rev. W. W. Williamson, printed in the London Horticultural Transactions, November is recommended as the season for planting the Ranunculus, unless the weather be so wet or cold as to endanger the roots, when it is suggested to defer planting until the middle of January, or not later than the middle of February. Van Oosten, a Dutch florist, recommends the end of October; but Mr. Hogg prefers the middle of February, or the beginning of March, mainly on the ground, that though the roots may live through a mild winter without much covering, it is not safe to run the risk of losing valuable roots, which may have been collected at much labour and expense. Moreover, it would appear that the plants are not more healthy, nor yet the flowers finer, when the roots are planted in autumn, and that the only compensation for a risk, apparently so imprudent, is the trifling gratification of seeing them a little earlier in bloom than they would have been had the operation been deferred till spring. Dr. Horner, and Mr. Lightbody of Falkirk, both successful growers of this flower, agree in stating the *best* season for planting to be during the first fourteen days in February.

PLANTING.—The mode usually practised in planting this favourite flower, is by stretching a line across the bed, and putting by the side of it a little river sand, placing the tubers with the claws downwards, and when all are planted, covering the bed with a fine light soil, so that they may be as near as possible an inch and a half below the surface. The bed being then rendered perfectly

even throughout, the soil is gently beaten down with the flat side of the spade.

There are two other modes ; by dibbling, as practised by farmers in setting beans, the plan preferred by Dr. Horner ; and by drills running across the bed, in which, after putting a little sand at the bottom, the tubers are placed at the proper distances, and then covered. The distances most generally recommended are from six to eight inches apart each way.

PERPETUAL RANUNCULUS BEDS.—By successive plantings, every alternate month, beginning with February, the Ranunculus bed may be kept bright and gay throughout the summer, and by protection in frames they may be had in flower in the winter months.

TREATMENT OF BLOOMING PLANTS.—As soon as your plants appear, if they are in a situation exposed to the sun throughout the day, they must be shaded from ten o'clock in the morning until four in the afternoon ; and a moderate supply of soft water continually given to them, increasing in quantity as the plants grow larger ; and then great attention must also be paid to shelter them from the sun, as the leaves become dry and shrivelled, and thereby not only are the plants injured at the time, but the roots are exhausted by yielding up their nonrishment for the present subsistence of the plants, rather than accumulating the properties essential to their future well-being.

The Ranunculus will continue in flower for a month if carefully managed ; and when the flower begins to show colour, not a sunbeam must be permitted to fall upon it with unbroken splendour, because the colours run or fade,

if an excess of light is allowed to act upon them. A canvas awning on hoops should therefore be placed over them, but so that the centre of the arch formed by the hoops be at least two feet from the surface, that a free current of air may pass over the bed.

WATERING GROWING PLANTS.—When the flower stems begin to rise, the surface of your Ranunculus bed must be kept pretty firm, and be occasionally watered with liquid manure, this mode of supplying food to the roots being found by experience to promote the health and growth of the plants, and increase the beauty and size of the flowers most effectually. Dr. Horner, of Hull, in a communication to the *Gardeners' Chronicle* in 1842, observes, that more injury is done to the Ranunculus by injudicious watering in hot weather than it sustains from natural diseases, or the ravages of the earth-worm. He considers that a moderate watering every other evening, at such seasons, an adequate supply of moisture for all essential purposes, and that a superabundance of it excites into violent action the natural functions of the root, which absorbs the water in excess, transmits it in excess throughout the whole plant, when the organs of the leaves are overwrought, and they become yellow and faded. He also suggests the use of moss to preserve the surface of the bed moist, which should be placed in a compact layer between the plants; or exhausted tanners' bark will answer the same end.

Water should never be given when there is any indication of frost; soft water should always be used, and it is better that it should be exposed to the full influence of

the sun in an open vessel for some time before it is required, to raise the temperature.

HYBRIDIZING FOR NEW VARIETIES.—Mr. Tyso, an eminent florist at Wallingsford, has published the following hints on artificially crossing the Ranunculus. The operation of crossing should be performed when the flowers are in the highest perfection, from ten o'clock in the morning until two or three o'clock in the afternoon, choosing a day when the weather is dry, serene, mild, and sunny. The flowers best adapted to the purpose of crossing are those which are semi-double, and possess good characters of form and colour. The more entirely double those flowers are from which the pollen is to be taken, the greater chance there is of obtaining new double varieties. The art can only be successfully practised by having some of the best show flowers of each class which produce a 'seed vessel, known by their showing more or less of an eye, and a number of the best semi-double varieties of each class of colours, producing anthers as well as seed vessels.

The best mode is to gather the semi-double flowers, and to bring them in contact with the flower to be crossed, by lightly pouncing over it. If semi-double flowers are scarce, a large camel's hair pencil, dusted with pollen, may be pounced over the flower intended to be crossed. The operation ought to be performed once or twice a day on every crossed flower till the petals begin to wither off.

When the crossed flowers are withered, the stems should be tied to sticks with bandages of matting, to prevent them from breaking. So soon as the heads become brown, let them be gathered and dried in the shade.

Sweet recommends the yellow to be crossed with black, the scarlet or crimson with white or yellow, always selecting colours the most distinct for intermixture.

PRESERVATION OF THE SEED.—When the receptacles in which the seeds are contained are gathered, they are placed in a dry box or cupboard until the sowing season, when the seeds are separated from them by the back of a knife, or some other blunt edged instrument.

It is said that the seeds of the *Ranunculus* will germinate more speedily, and produce a greater proportion of double flowers if preserved for a year from the time they were ripened before being sown ; and that if kept until the third or fourth year the quality is further improved.

TAKING UP AND STORING THE TUBERS.—In the latter part of June, or early in July, the foliage of the *Ranunculus* has become changed and dry, at least, those which were planted in the previous autumn ; and this state of the foliage, at whatever season it occurs, is a sufficient indication that the growth of the season is over, and that it has obeyed the unerring laws of nature by the sap receding into the tuber, there to lie dormant until the ensuing season ; when, if again supplied with its natural food, it will spring up, and gladden the eyes of every beholder who can appreciate the beauty of a flower. But the indication referred to above is also the surest guide to cultivators when to remove them from the ground, which operation must be done with care, so that neither the tubers nor the young and slender fibres protruded from them, may receive the slightest injury.

The plan most highly recommended, is to put the roots,

after cutting off the stems and foliage, and taking them out of the ground, in a fine wire bottomed sieve, and to work this about in a tub of water, but taking care not to allow the top of the sieve to be submerged in the water. By this means the earth will be thoroughly washed from the tubers and their fibres, without causing any injury. They must then be placed in an airy room, shaded, but dry, and when thought to be thoroughly dry, they may be tied up in bags, and suspended from the ceiling of a dry apartment.

THE CRITERION OF A PERFECT RANUNCULUS.—It is essential that the stem of the Ranunculus should be at least eight inches long, in order to render it worthy of the florists' notice ; and to be considered a first-rate variety, the flower by which it is terminated must be fully two inches in diameter, and the cup well filled with petals equally concave, and gradually diminishing in size towards the centre. The nearer the whole flower approaches to a perfect hemisphere the more highly it is prized. The petals of which it is composed should not be too close so as to appear crowded, nor yet too far apart, which would make the flower mean and poor, and they should be imbricated or channelled, so far only as is necessary to secure an entire circle without indentation ; they are required also to be broad, and quite free from serrature or fringe at the edges. With respect to colour their beauty is in the richness and brilliancy of the tints combined with depth or opacity ; either entirely of one uniform colour, or variously pencilled on delicate grounds in stripes or spots.

A LIST OF CHOICE RANUNCULUSES.

Selected from Mr. Groom's Catalogue of his extensive and valuable Stock ; those marked A. are also contained in the List published by Mr. Alexander, of Kingsland.

WHITE, WHITE SPOTTED, MOTTLED, OR EDGED.

Addison, sp.
Algernon Sidney, e. A
Amours, Mr. Ellis, m.
Ariadne, sp.
Belina, m. A
Burns, e. A
Burnet, m.
Catalani, e.
Civilian, m.
Claudiana (Groom's), sp.
Clausina, e.
Cœur de Lion
Coriolanus, e.
Desdemona
Doctor Franklin, e.
— Young, e. A
Duchess of Sutherland, sp.
Edward Bruce, e.
Eliza (Groom's), sp.
Emancipator, e.
Emily
Faunus
Gem (Groom's), m.
Goethe, e.
Grand Sultan, m.
Homer, m.
Juliana, sp.
Juno (Scotch) e.
King at Arms, e.
Lady Crewe, sp.
Lady Grey (Groom's) e.
Lady Jane Grey, m. A
Lady Peel (Groom's), e.
Lictor, e.
Lord Dartmouth, m.
Louis XVI., e.

Marquis of Douglas, m.
Mars, e.
Menelaus, e.
Midas (Groom's), e.
Miss Stephens, e.
Mr. Welsh, e.
Mr. Strong, e.
Napoleon, e.
No Proxy, e. A
Pactolus, e.
Prime Minister, e. A
Princess of Wales, sp. A
Scout, e.
Sinclair, sp.
Sir Alex. Cochrane, m.
Sir J. Graham, e. A
Sir Walter Raleigh, e. A
Talisman, e. A
Tam O'Shanter, e. A
Ten Pounder, m. A
Thompson's Queen, m.
Uncle Toby, e.
Vice Admiral, e. A
Vindicator, e. A
Waterloo.

RED AND WHITE STRIPED.

Curion
Gontran
Le Temeraire
Pierre Le Grand
Rhododendron
True Merit.

RED AND YELLOW STRIPED.

Celadon
Favourite Superbe
Mélange des Beautés
Œillet Parfaite
Passe Favourite Mignonne.

A SELECT LIST OF RANUNCULUSES.

DARK AND DARK PURPLE.

Alcides
Charbonnier
Chaucer
Demaratus
Hercules (Groom's)
Hirrm
Kempenselt
Manteau Imperial
Maximilan
Niobe *A*
Œdipus
Œil Noir *A*
Quixos *A*
Roi de Mauritaine
Ulysses (Groom's)
Veriat
Zebulon, yellow striped.

LIGHT PURPLE.

Barry
Castor
Mentor (Groom's)
Tyrus
Violet Foncé
GREY.
Bleautre
Duke of Buccleuch
Germanicus
Goliah
Habit Velouté
Lord Brougham
Rob Roy

CRIMSON.

Artaxerxes
Countess of Exeter
Earl of Hardwicke
Grand Roi de Perse
Gunn's Crimson
Newton, *A*

RED

Alphonso
Domingo
Pizarro
Soliman

ROSY.

Clio (Groom's)
Diomede

Hercules
Lady Douro
Madonna
Mercury
Proserpine (Groom's)
Rose Magnificent
— des Dames

YELLOW, YELLOW SPOTTED,
OR EDGED.

Aglaia
Beauté Janne
Bulwark, e.
Calliope (Groom's), m.
Captain Cook, cream sp.
Clansman, e. *A*
Don Pedro (Groom's)
Duke
— Norfolk, e.
— Beaufort
Eliza, straw
Engineer, e.
George IV. e.
Harold, m.
Lord Amherst
Marquis of Sligo, m.
Marshal Soult, *A*
Pan
Panobe, e.
Poussin, e.
Rienzi, m.
St. Cecilia (Groom's)
Vandyke, sp.
Westall, e.

ORANGE.

Bavaroise
Feu Eclatante
Pulcheria
Tippoo Saib

OLIVE.

Admiral Howe
Bizard Singuliere
Bouquet Sanspareil
Desdemona
Esquimaux
Lord Stavendale
Olive Panaché



POPULAR FLOWERS.

THE POLYANTHUS;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH

A LIST OF FAVOURITE VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH; S. J. MACHEN, DUBLIN.

1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	25
PROPAGATION	27
BY SEED	ib.
BY DIVISION OF THE ROOTS	29
SITUATION	ib.
POLYANTHUS BED	30
PLANTING	ib.
POLYANTHUS IN POTS	31
BLOOMING	32
SEED SAVING	ib.
STANDARD OF A PERFECT POLYANTHUS	ib.
COMPOST	33
INSECTS INJURIOUS TO THE POLYANTHUS	34
CHINESE PRIMROSE	35
LIST OF CHOICE POLYANTHUSES	37



THE POLYANTHUS.

INTRODUCTION.



HE Polyanthus, of which these few pages treat, is not thought worthy of a distinct position by botanists. By them it is considered to be simply a variety of the Primrose, if they have considered the matter at all, for the simple fact that this flower, as ordinarily propagated by seed, is true to the character of the parent plant, in the main, namely, the leaves growing in a tuft, and an upright stem, surmounted by a truss of various coloured flowers, rising from the crown of the root, distinguishing it from all the rest of the tribe, excepting the Auricula, seems to warrant the inference that it is a perfectly distinct species. This however is of little consequence, it is sufficiently distinct from the other members of that family with which it is associated, to prevent its being mistaken for any other of its brethren ; not so how-

ever is its name, which, compounded of two Greek words $\pi\omega\lambda\dot{\nu}\text{-}\alpha\nu\theta\text{o}s$ (*polyanthos*), has been also applied to an East Indian plant of great beauty and fragrance, *Polianthes tuberosa*; and to *Narcissus tazetta*, the last commonly known by the name of Polyanthus Narcissus. The attempt to avoid the confusion which such a similarity of names is calculated to produce, has, perhaps, in no instance created such a ridiculous absurdity as in the case of *Polianthes tuberosa*. The beautiful and fragrant flowers of this plant grow in a sort of spike at the top of a single upright stem of great delicacy, from the base to the summit of which leaves of an elegant lanceolate form are thrown out on all sides; this stem rises from a tuberous root, whence its name *tuberosa*, or the tuberous rooted Polyanthus; but mark the absurdity, large quantities of these tubers are annually imported into this country from Italy under the name of the Italian *Tuberose*; the plant is commonly known by that name in England, and throughout the Continent; and this, apparently, from a name having been appropriated to it by which the Primulaceous Polyanthus was universally known.

Mr. Herbert, in a communication to the Horticultural Society, which was published in their Transactions, states that he raised from the natural seed of the umbel of a highly manured red cowslip, a primrose, a cowslip, oxlips, of the usual and other colours, a black polyanthus, a hose-in-hose cowslip, and a natural primrose bearing its flowers on a polyanthus stalk. From the seed of this hose-in-hose cowslip, he says, he has since raised a hose-in-hose primrose. He therefore considers all these to be only local varieties depending upon soil and situation. This is

an extraordinary statement and though we cannot doubt the facts, neither can we coincide with Mr. Herbert's deduction.

The Polyanthus has been much neglected by florists as well as amateurs for many years past; but why, it is not possible to say, though the neglect is generally attributed to the supposed difficulties in its treatment; certainly it is not caused by its lack of beauty, for its attractions are quite equal to those of the Auricula, and we hope to see it become equally popular.

With the Auricula, the Polyanthus stands in the fifth class (*Polyandria*) and the first order (*Monogynia*) of the Linnaean classification, and in the order *Primulaceæ* and the grand division *Dicotyledones* of the Natural System.

PROPAGATION.—The Polyanthus is increased by seed, by slips, and by division of the root.

BY SEED.—Florists differ both in opinion and practice, as to the proper time of sowing Polyanthus seed. Some sow it as soon as it is ripe, which seems to be the natural mode, and by which the plants, which survive, flower in the second spring after the time they are sown; but many without great care are sure to perish in the winter. Others sow them late in the Autumn, and some again in December, and this we believe to be the most general custom, as they do not then appear until the danger of their being cut off by frost is very greatly diminished. Mr. Revell, of Sheffield, whose treatment of this flower has been very successful, defers the operation until February, when he fills a box with light new mould, and covers the

seed with a stratum of mould about a quarter of an inch thick. In a month or five weeks the seedlings appear, and occasionally require to be watered in the morning, and generally to be covered with a hand-glass during the night.

If sown immediately after being ripe, which will commonly be about the beginning of July, it should be laid tolerably thick and even upon a loamy soil, with which some rotten manure has been previously mixed, under a hedge or wall with a north aspect. The seed must then be slightly covered with light earth, and when the young plants have made their appearance, water should be given as often as required, which will be frequent if the season is dry. It is also imperative that the bed be kept perfectly free from weeds. In this situation the seedlings may be allowed to remain for twelve months from the time of sowing, when they may be removed to the bed where it is intended that they should remain to flower.

Seeds sown in December require a little more care and attention. At that period pans or boxes must be filled with prepared compost, and the seed sown therein, and the seed-pans set in a situation where they will have the benefit of the morning sun only; when the seeds have germinated, and have thrust their seed leaves through the soil, great care must be taken, not only to protect them from cold and frost, but also to shield them from the sun —they may be exposed to its rays for a short time in the morning, but if subjected to its influence throughout the day the chances are that the whole crop will be destroyed.

BY DIVISION OF THE Roots.—This mode of increasing the number of plants is performed in the same way as in the case of the Auricula ; and the taking up of the plants once a year, or at least once in two years, and dividing the roots, is almost as necessary to preserve the health of the old plants, as to procure an increase of stock by that means.

The operation is most advantageously done immediately after the plants have ceased to flower, when the offsets or slips that have formed roots may be gently separated by means of the thumb and fingers, and planted in the compost recommended for established plants, in a shady situation, rather than in pots.

SITUATION.—The Polyanthus is frequently grown in pots, especially by florists and nurserymen for the purpose of sale, and are placed on the Auricula stage, where they add much to the variety of such a collection, but they do not succeed so well as when planted in the open ground ; and then they thrive and prosper most in a border exposed to the east. This is to be understood with some modification ; because plants which are grown in the border, though they become stronger and more healthy than those grown in pots, yet if allowed to remain out the whole year and flower in the open ground, their flowers are never procured in perfection ; and therefore all those plants whose flowers are required to show, are taken up early in the spring, as elsewhere directed, and nurtured with the tenderest care. In gardens the Polyanthus is found in flower as early as its kindred, the Primrose, but

few of those which have any pretensions to the name of a florists' flower are in bloom before the middle of April.

POLYANTHUS BED.—The situation having been decided upon, the natural soil is removed to the depth of one spit or spadeful, and replaced by a thick layer of rich moist cow dung, the chief office of which is to serve as a reservoir of moisture. This cow dung must, however, be thoroughly rotten, for if it be recent it will encourage worms to such an extent as to most effectually destroy all your plants. Upon this place your compost (prepared as elsewhere directed), so as to raise the bed about three inches above the surrounding level. It is the general custom to prepare the bed in autumn, but whether it be made then or in the early spring, it is advisable to water it occasionally with lime water in order to destroy or drive away worms and slugs, whose depredations often cause much loss and vexation to the amateurs of this pretty flower.

PLANTING.—The following plain directions for planting the Polyanthus are from a communication made to the *Gardener's Chronicle*, by Dr. Horner, of Hull:—“The proper time (for planting), is at the end of July, not later, for it is important that the plants should get well established in the soil before the approach of winter. The operation should be thus proceeded with. Shorten the main or tap root, as it is called, to within about half an inch of the leaves, that a few of the vigorous young fibrous roots only may be retained; with a small trowel make a hole in the soil sufficiently deep that the plant, when once set

therein, may have the very crown of the main root covered at least one inch with the soil. It is of the utmost importance that the Polyanthus should be thus deep set, for the young roots always emanate from the very top of the main root, and throw themselves out for the most part in a somewhat curved or horizontal manner, and it is essential that they should at once meet with support, which they cannot do when a superficial method of planting is adopted ; hence, how frequently do we see the common Polyanthus in the borders exhibiting bunches of bare curly roots above the soil ; having well watered the bed, the plants require no more care whatever, except being kept clean ; they should be left entirely without covering or protection in the winter."

We will only add to this that the plants must be placed at a distance from each other of about eight or nine inches, without reference to the age of the plants, whether they be old roots, or mere slips, or seedlings.

POLYANTHUS IN POTS.—Those plants which have been growing through the winter in the open garden, may, so soon as they have thrown up their upright stems in the spring, be taken up and potted, if required for the stage or for show flowers ; this transplantation does not effect any apparent check upon their growth, nor injure their blooming, though there can be no doubt that taking all points into consideration, the Polyanthus thrives best in the border. At the same time any plants which have been kept in pots during the winter should receive a little attention. Remove the surface soil in the pot to the depth of an inch, and replace it with the compost elsewhere recommended.

After this top dressing, these must be allowed all the air possible in mild weather, but kept in the frames at night; a gentle shower of rain in the morning will not be injurious; but great care must be taken that water does not become stagnant, both round the roots of these, or of those which may have been transplanted.

BLOOMING.—When the plants have thrown up their stem and formed the truss, it is desirable that the small buds should be carefully removed so as to give room for the freer expansion of the remaining pips; there should never be more than seven left to flower, nor less than five, and as soon as they show colour they should be protected from the sun, and from rain, to prolong the duration of their blooming season.

SEED SAVING.—It is worthy of being noticed, for the encouragement of the amateur, that those plants which are raised from seed yield better flowers than such as are taken from old roots. The saving of seed, therefore, is a matter not to be neglected; it should be annually collected from the finest plants; and as some of the capsules are ripe sooner than others, these should be cut off as they ripen and put in a shallow drawer, which should be placed in a sunny situation until all the capsules are ripe. They may then be preserved in the capsules in a dry place, until they are to be sown.

THE STANDARD OF A PERFECT POLYANTHUS.—Florists have long ago fixed the standard by which the pretensions of a Polyanthus to the character of a perfect flower are

to be tested. It is required that the stem be strong, erect, and elastic, sufficiently high to support the umbel of flowers above the foliage of the plant. The peduncle or footstalk of each separate flower must also be firm and elastic, and its length bearing a fair proportion to the size and quantity of the pips; and the number of these ought not to be less than seven, that the entire number may be round, close, and compact. The tube of the corolla above the calyx should be short, well filled with the anthers or summits of the stamens, and terminate fluted a little above the eye. The eye is required to be round, of a bright clear yellow, and perfectly distinct from the ground colour; the proportions of a first-rate flower are that the diameter of the tube be one part, the eye three, and the whole pip six or nearly so. The ground colour is most admired when it is shaded with a light and dark rich crimson, of a velvety appearance, with one mark or stripe in the centre of each division of the limb, bold and distinct from the edging down to the eye, where it should terminate in a fine point. The pips must be large, perfectly flat, and as nearly round as may be consistent with their peculiarly beautiful figure, which is circular, with the exception of those small indentures between each division of the limb, by which the flower is divided into five heart-like segments. The edging should resemble a bright gold hue, bold, clear, distinct, and so nearly of the same colour with the eye and stripes as to be scarcely distinguishable from them.

COMPOST.—All florists agree in recommending fresh loam from an old pasture as the chief ingredient in a

compost for the Polyanthus, with which should be mixed leaf mould and cow manure thoroughly decomposed. The following are the respective proportions of these ingredients; one-sixth each leaf mould and cow manure, and four-sixths fresh loam.

INSECTS INJURIOUS TO THE POLYANTHUS.—In the spring months great depredations are committed upon this plant by snails and slugs; and to mitigate the injury they do, the only effectual way is to examine the beds early every morning when they are most active. But there is a still more dangerous enemy than either of the preceding, which silently and it may almost be said invisibly to the naked eye, carries on its depredations during summer. Whole collections have in some instances been nearly destroyed before the real cause of the devastation has been found out. The first effect produced by the attacks of this little insect, the red spider (*acarus*) is detected in the leaves, which become yellow and spotted; when the plants are so affected they must be taken up and soaked for two or three hours in tobacco water, and then replanted in fresh compost and in a different situation; because if planted in the same bed there would be danger of their being again attacked. It has been remarked that the red spider seldom attacks vigorous plants and when the season is cold and wet they do not commonly make their appearance; they commence their ravages early in the summer, and continue them so long as the heat and dryness of the weather permits.

THE CHINESE PRIMROSE,

Primula Sinensis.

THERE are only three or four varieties of this pretty delicate flower at present in cultivation; but, blooming in mid-winter when little else is to be seen, we would here call the attention of all lovers of flowers to this beautiful plant. They are grown in great abundance in the neighbourhood of London, and will [doubtless, soon find their way throughout the provinces.

At present they are confined to the greenhouse or dwelling house in winter, and require to be kept in the most airy part of the apartment in which they are placed, and to be supplied rather sparingly with water, no plant being more disposed to damp off in winter than this. They are grown in pots, filled with a compost formed of one half turf peat and the other half of sandy peat and leaf mould in equal quantities.

In summer they may be set in the open air where they will require shading, and in October they must be taken into the greenhouse or a warm room.

The seed is sown in pots, in May, in a light sandy soil in pans which are placed in a cold frame, and when they have germinated they are covered with a little damp moss, for drought at this period destroys the young plants. When they have formed three or four rough leaves, they may be transplanted into small pots in the compost previously recommended. It is important that this trans-

planting should be attended to as they die off if allowed to remain longer in the seed pans.

We never enter a room where this flower is blooming without being reminded of Bernard Barton's address to a Primrose, from which we present the reader with a few verses :—

Flower of pale but lovely bloom,
Given to grace my humble room,
On my spirit's wakened sense
Pour thy silent eloquence.

Fairer flowers which gardens bear,
Proud exotics reared with care,
Beautiful though they may be,
Never can compare with thee.

Faintly while I look on thee,
Seems the past again to be ;
Sights and sounds which then were dear,
Greet again my eye and ear.

Grateful is it yet to feel
In the heart thy mute appeal ;
Lingering greenness lurking there,
Feelings such as these declare.

Shed, then on dark manhood's gloom,
Gleams of sunshine from thy bloom,
Through whose spell the spirit seems
Once more young in childhood's dreams.



A LIST OF CHOICE POLYANTHUSES.

Alderman Wood, Warris's
Alexander, Pearson's
Archbishop of York, Water-
house's
Bang Europe, Nicholson's
Beauty of Coven
Beauty of Dover
Beauty of England, Maud's
Beauty of Over, Billington's
Blucher, Tandy's
Blackguard, Pearson's
Black Prince, Mason's
Black Rock
— Prince
Black Boy
Black and Gold, Eckersley's
Bucephalus, Wilson's
Buonaparte, Turner's
Chilwell Hero
Commander, Clegg's
Cœur de Lion
Competitor, Pearson's
Cross Green Lass, Manning's
Defiance, Pearson's
Defiance, Harleys
Defiance, Fletcher's
Defiance, Darlington's
Earl Grey, Huston's
Elizabeth, Biddle's,
Emperor, Turner's
Forester
Formosa, Barnard's
Fox Hunter
General Mina, Mausley's
George IV, Buck's
Gleaner, Wilde's
Glory, Pearson's

Golden Ball, Thorpe's
Gold Lace, Nicholson's
Harlequin, Lee's
Heir of Wallerton
Highlander, Lombard's
Huntsman, Buck's
Invincible, Crownshaw's
Invincible, Hattersley's
Invincible, Thomas's
Incomparable, Waterhouse's
Jolly Dragoon, Eckersley's
King, Hopkins'
King, Brown's
King, Moore's
Lancer, Bullock's
Lord Crewe, Clegg's
Lord Dudley, Groom's
Lord John Russell
Lord Primate
Lord Rancliffe, Huston's
Lord Nelson, Parke's
Lord Nelson, Thompson's
Magnificent, Lee's
Miss Mitford, Johnson's
Marquis of Titchfield, Turner's
Marquis of Anglesea, Buck's
Mary Anne, Rock's
May Pole
Othello, Revell's
Prince of Orange, Clegg's
Prince Regent, Cox's
Prince of Wales, Turner's
Prince William, Martin's
Princess, Turner's
Princess Royal, Collier's
Princess Charlotte, Waterhouse's
Queen Anne, Irlam's

A SELECT LIST OF POLYANTHUSES.

Ranger, Woolley's	Superb, Lee's
Regent, Cox's	Tantararara, Fillingham's
Regent, Tandy's	Telegraph, Steed's
Ruler of England, Thomas's	Traveller, Stretch's
Sceptre, Harley's	Traveller, Buck's
Secretary, Revell's	True Briton, Cartwright's
Sir Andrew Knight, Fletcher's	Venus, Massey's
Sir Sidney Smith	Victorious, Hobson's
Sly Boy, Lee's	Waterloo, Radcliff's
Smiler, Heapey's	Waterloo, Thomas's
Squire Ray, Huston's	Wellington, Bray's
Stranger's Friend	



POPULAR FLOWERS.

THE CINERARIA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH

A LIST OF FAVOURITE VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH; S. J. MACHEN, DUBLIN.

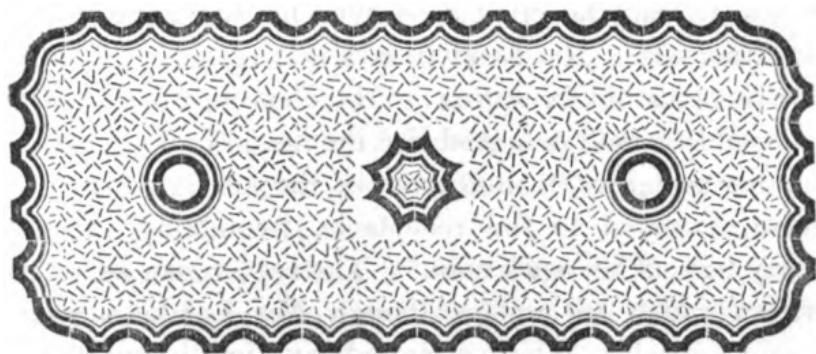
1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	37
PROPAGATION	40
BY SEED	ib.
BY CUTTINGS	ib.
BY DIVISION OF THE ROOTS	41
CINERARIA IN POTS	42
CINERARIA IN THE OPEN GROUND	43
TREATMENT AFTER BLOOMING	ib.
POTTING	45
WATERING	46
INSECTS	47
SELECT LIST OF CINERARIAS	48

The Frontispiece is a portrait of the "Grand Duke," drawn from the living Plant in the possession of Mr. Groom, of Clapham Rise.



THE CINERARIA.

INTRODUCTION.



THE Cineraria, though only brought into general cultivation within the last few years, has deservedly acquired much favour among the floral world, and its attraction of the simple admirers of flowers, has drawn into the train those scientific gentlemen who have always an intense delight in proving everything to be something else than the thing the world has always supposed it to be. The name Cineraria, was given to the genus on account of the soft white down which covers the upper surfaces of the leaves, and in many cases the under surfaces also, very nearly resembling wood-ashes (*cineres*). By closer examination, modern botanists have succeeded in proving, to their own satisfaction, that these plants properly belong, for the most part, to the family *senecio*, of which the common

groundsel may be cited as a type for the unlearned in these matters. Mr. Loudon says it is so named because it "becomes old in spring;" Mr. Paxton, "because the receptacle is bald or naked like the head of an old man;" another authority, "on account of the soft grey hairs, or down, attached to the receptacle, resembling the soft hoary hair of an aged man." The reader can adopt the reason which he prefers, though Mr. Loudon's seems scarcely tenable. The species and varieties, the cultivation of which is under consideration, are herbaceous plants, and are chiefly furnished with perennial roots, the stems dying down to the ground in autumn, and shooting forth again in the spring, if not destroyed by cold or other causes in the winter.

We shall use the name *Cineraria* throughout; for though it may be more pleasing to the botanist to hear plants spoken of by the names they hold to be correct, much confusion and misapprehension would arise by any other than the popular name being wholly and solely adopted in a treatise designed for popular readers.

Those charming plants with large flowers, which are cultivated now so extensively by florists for sale, have been procured by hybridization among the following and other species:—*Senecio venustus*, a graceful variety, with rich purple flowers; *Cinerarius maritimus*, a yellow species from the South of Europe; *S. erubescens*, a blushing purple from the Cape of Good Hope; *C. lacteus*, with flowers of a milky whiteness; and *S. cruentus*, from Teneriffe, bearing flowers of a rich sanguineous purple. The cultivation and hybridization of these plants were first undertaken by English florists, and the varieties resulting from

this treatment have become gradually dispersed throughout Europe ; and according to the nature of the climate, they have undergone various changes and modifications of habit and colour ; the Belgians, and then the French, have alike taken great pains to increase and improve the flower.

Different species bloom at all times and seasons, from January to December, according to the circumstances in which they are placed.

The species which compose the genus *senecio*, are extremely numerous, and render it one of the most considerable of the whole vegetable kingdom. Nevertheless, they require to be studied with the greatest care, if we would classify them accurately, without reference to the numerous sections into which they are already divided, and which are based on considerations having regard only to their less permanent properties, such as their forms, and the country where they are indigenous ; while by such minute examination as here intended into their characters and properties, a great number of them would probably need to be added to other genera, or would form themselves into distinct species.

They are shrubby plants, of various forms and appearance, and are found in every part of the known world ; the leaves are alternate, the flowers grow in a solitary head at the extremity of the stem, corymbose or panicled ; the corollas of the ray are very often yellow ; very rarely purple, sometimes white or even blue, in cultivated species.

Both genera, namely, *Cineraria* and *Senecio*, are placed in the extensive natural order, *Compositæ*, and the *Dicotyledonous division*, while in the Linnæan system, they

are in the nineteenth class (*Syngenesia*), and second order (*Superflua*).

PROPAGATION.—There are three modes of increasing this pretty plant, by seed which ripens abundantly in this country, and from which the many beautiful hybrid varieties recently introduced to the notice of amateurs have been obtained; also by cuttings and by division of the roots.

By SEED.—The seeds of the Cineraria may be sown either in spring or autumn, provided the cultivator has the means of preserving them in the winter. If sown in spring the most sure plan of raising them is to prepare shallow pans, which, with good drainage, should be filled with a light sandy soil, and the seed scattered regularly over the surface; having done this, cover them with similar soil, and supply them with a little bottom heat, giving them gentle and frequent waterings until the young plants appear above the surface. When they have made sufficient growth to bear removal, which will be when they have formed two or three pair of leaves, they may be transplanted singly into small pots filled with pure peat earth, or what is perhaps better, the same mixed with a small quantity of common garden mould; they will, however, grow very well in any light soil. If you have a greenhouse you may sow your seed as late as September, and when potted, keep throughout the winter within doors.

By CUTTINGS.—This mode may be adopted by those who have only a few small plants and are anxious to in-

crease them more rapidly than they can by seed or division of the roots. This may be accomplished by taking pots and filling them with bits of broken pots, stones, and cinders, to within two inches of the top of the pots; over this, place a layer of moss, and then fill up with white sand perfectly clean, or very light peat earth. Those who do not possess a stove may then plunge the pot in coal ashes, or tan, in a shady and rather moist border; placing a bell glass over each pot, and a close frame over the whole; the cuttings will require daily watering, and it should be observed, that each cutting must be put close to the side of the pot, so that one side of the cutting may be in close contact with the pot throughout its whole length.

By Division of the Roots.—The Cineraria, as previously remarked, is a perennial-rooted plant, all the stems dying down to the root when they have performed their functions; they spring up, put forth leaves, flower, ripen seed, and gradually perish, to be succeeded in the following season by other shoots from the main root. This putting forth new shoots, or suckers, from the old root is a very common property among herbaceous and subligneous plants (as well as in hard-wooded trees) and advantage has been taken of it to increase the number of shrubs by dividing the root into as many pieces as there are incipient stems, provided each portion of the root so furnished have also a sufficient quantity of fibres as purveyors of nutriment from the soil, to ensure vigorous vitality in the scion. The month of August is generally supposed to be the best period of the year for making this division of roots in the Cineraria. The professional florist commonly anticipates

nature by removing the flower-stems and old leaves of these plants as soon as the bloom has passed, by which course he forces all the vigour of the plant into the generation of new stems, and increases the strength of those which have not yet flowered, and with the view of promoting this tendency to the utmost, he places his plants when so cut down in a frame or cold pit, where he allows them to remain for some weeks, keeping them for the first two or three somewhat close ; and when they exhibit signs of growth a little air is admitted during the day, but excluded at night. When the season above mentioned has arrived the roots will be in excellent condition for being divided ; the pieces being planted in small pots, in a light soil ; if peat fresh from the moor-land can be procured so much the better, it will if mixed with good loam, and a little exhausted dung from a melon or cucumber bed, form an excellent compost for these plants. As soon as you have completed this operation, place them all in the frame, and take care to keep the frame close until they have recommenced growing. As they increase in size, let them be transferred to larger pots, and occasionally supply them with water, drained from a manure heap, in which a quantity of manure has been placed for some time before it is required for use.

CINERARIA IN POTS. — With the commercial florist this plant is most commonly found in pots, because in that state they are best adapted to his purposes ; and for the amateur this is a very convenient mode of growing them, that he may, on account of their portability, transfer them from one part of the greenhouse to another, or if

he desire it, remove them into his dwelling-house. For this latter purpose, indeed, many kinds are admirably suited, as they will bear for a long time, without any visible injurious effect, the confined air of a living-room; and they can be procured for this use during the greater part of the winter and early spring, when the variety of their colours, the beauty of the leaves of some of the tribe, and the spicy fragrance of others, gain sufficient favour at the hands of the fair rulers in that department to ensure their being well attended to.

CINERARIA IN THE OPEN GROUND.—A bed of these plants judiciously arranged as respects height, and the colour of the flowers is very ornamental in the flower garden. A situation sheltered from the sun during the hottest part of the day suits them best. The soil in which they are planted must be loose and friable, and they must have a sufficient supply of water at all times. The most economical way of procuring plants for this purpose is to purchase a packet of seeds of some respectable seedsman, from which, with proper management, you will raise an abundance of varieties. Of course you cannot tell what colour your flowers will be until they have bloomed, so that you must abandon any idea of harmony, in the arrangement of their colours, until the second season. You need have no doubt of success, as there is scarcely any plant more easily cultivated than this.

TREATMENT OF THE CINERARIA AFTER BLOOMING.—So soon as this favourite has ceased to cheer the amateur with its radiant star-like flowers, it will be his care to pro-

mote the growth of the plant with the view of strengthening it so as to enable it to bear the cool autumn and colder winter, which weak plants are not able to do even though sheltered as they must be in the green-house or cold frame ; and not only with this object in view, but also for the purpose of multiplying his stock, for though the root may put forth a shoot or two while the plant is blooming, yet, it is not until this period is past that the vigour of the plant is exerted in that direction. The amateur who neglects this duty may join Miss Jewsbury in her lament for faded flowers.

Faded flowers,
Sweet faded flowers,
Beauty and death
Have ruled your hours ;
Ye woke in bloom but a morn ago,
And now are your blossoms in dust laid low.

But yesterday
With the breeze ye strove,
In the play of life,
In the pride of love ;
To and fro swung each radiant head,
That now is drooping, and pale, and dead !

And with little hope so far as the few plants that have, perhaps, afforded him much pleasure are concerned ; but he who cares for them and provides for their future growth and increase, may look forward with certainty that in the ensuing season these will cheer him with their bright and radiant corymbs, and pour forth their spicy fragrance for his delight.

Those plants then which have bloomed in pots will be turned out and planted in a situation prepared for them, where they will be protected from too much heat.

In this operation the greater part of the ball of earth that was about the roots must be removed, and the flower stems cut down to within two inches of the base, and then set them at from about ten to fourteen inches apart from each other. It is desirable also to sink the crown of the old root a little below the surface as recommended in the case of the Polyanthus, by which means the shoots which are looked for to yield your future stock of plants will have formed an ample supply of roots for their separate maintenance when the season arrives for their removal from the parent stock.

The Cineraria loves a free and loose soil, and it is of importance that this should be taken into consideration in preparing a bed for them. An admixture of sand and rotten dung is recommended to such soil as is not of a friable character, but this often fails to remedy the evil, for some earth is of a nature so adhesive when water is applied, that such admixture is scarcely a mitigation of its quality, and if your soil should be of that description, the better way is to remove it altogether and replace it with good fresh mould, to which may be added some exhausted manure from a cucumber bed.

Thus planted out they will require constant and free waterings in dry weather, and the bed also must be kept free from weeds by hand picking; the use of the hoe being dangerous to the shoots, which in some cases may not be visible above the surface of the soil.

POTTING THE CINERARIA.—Like the generality of plants which are considered denizens of the greenhouse, the Cineraria requires a compost formed of a mixture of

fresh loam to the extent of one-half of the whole, and the other half equal portions of leaf mould and moor earth, mixed thoroughly together but not sifted. For it has long been known that plants thrive the best in the most porous and open compost ; the drainage of the soil in the pots is also of vital importance to the well-being of the plant, and to this end, before putting in the compost, a broken piece of the side of a pot is placed with the hollowed side downwards, over the hole at the bottom of the pot ; over this must be put a quantity of broken pots or large gravel, the layer formed by these varying in thickness according to the size of the pot. Upon this layer of gravel place a little moss, which serves a two-fold purpose, it prevents the finer particles of the compost from being washed down among the drainage and choking it ; while it also retains moisture which would pass through the pot perhaps too readily, parting with it slowly as the surrounding compost becomes dry, and thereby rendering the necessity of watering less frequent.

At the time of dividing the roots of the Cineraria in August, there will be many shoots not sufficiently strong to bear separation from the original root ; these are allowed to remain on the old root, and after the bed has been dug over, they are again planted, and in October, which is the proper period for removing them into the greenhouse, the greater part of them will have become nice plants for potting.

WATERING.—When potted and removed to the greenhouse or frame, they will require occasional watering, which should be supplied in the morning ; and air must be occa-

sionally admitted before noon, taking care, however, that this be not done when there is much wind, as gusts of wind have a withering effect upon plants, independent of the temperature.

INSECTS.—The greatest enemy to the Cineraria is the greenfly, which infest it, even more than they do the Geranium or Pelargonium. Hence they require continual examination, and whenever any of these marauders are discovered they must be immediately and carefully destroyed; hand-picking them is perhaps the most efficient mode, or washing the leaves with tobacco water; or if you can fix them in such a position that the fumes of burning tobacco placed under them may reach them while hot, they will fall down from the leaves and branches, and may readily be destroyed. It is necessary to remark, however, that unless they fall into the hot ashes of tobacco, and so are literally burnt to death, their extermination is not certain; they should therefore be crushed by some means; for the tobacco smoke seems only to stupify them without causing death.

Courteous reader, we have heard it confessed that those who admire and delight in flowers were suspected of affectation. We will answer for the majority of those into whose hands this may fall, that their love of these, the most beautiful of all the beautiful inanimate objects with which the world abounds, is sincere and earnest. We have heard it questioned, whether flowers were of any use! If but one reader of these pages doubt it, read Mrs. Howitt's verses on the Use of Flowers; they are

not adapted to modern utilitarian views, but will be sufficient for all who have learnt to "look through nature up to nature's God!"

God might have bade the earth bring forth
 Enough for great and small,
 The oak-tree and the cedar-tree,
 Without a flower at all.

He might have made enough, enough,
 For every want of ours ;
 For luxury, medicine, and toil,
 And yet have made us flowers.

The one within the mountain-mine,
 Requirerh none to grow,
 Nor doth it need the lotus flower
 To make the river flow.
 The clouds might give abundant rain,
 The mighty dews might fall ;
 And the herb that keepeth life in man
 Might yet have drunk them all.

Then wherefore, wherefore were they made
 All dyed with rainbow light ;
 All fashion'd with supremest grace,
 Upspringing day and night.
 Springing in valleys green and low,
 And on the mountain high,
 And in the silent wilderness,
 Where no man passes by ?

Our outward life requires them not,
 Then wherefore had they birth ?
 To minister delight to man,
 To beautify the earth ;
 To comfort man—to whisper hope
 Whene'er his faith is dim ;
 For whoso careth for the flowers,
 Will much more care for him.

A SELECT LIST OF CINERARIAS.

Alba, Gaines's	Neplus Ultra, Gaines's
Blue Eyed Maid, Gaines's	Princess Victoria
Cissa	Prince Albert
Duchess of Gloucester	Prince of Wales, Gaines's
Excelsa, Gaines's	— Albert, Gaines's
Exquisite, Marnock's purple	— Albert, Rous's
Formosa	— Albert, Marnock's blue and white
Grand Duke	Queen Victoria, Marnock's rosy purple
Grandis	Queen of May
Grandissima	Rival King
Hendersonii	Royal Blue
Imperial Blue	Splendida
Joan of Arc, Gaines's	True Blue, Gaines's
King	Urania
King of Purples, Marnock's	Victoria Regina, Gaines's
King of Blues, Marnock's	Victory, Gaines's
Lady Alice, Marnock's blue	Waterhouseana
— Major, Gaines's	Welbeck
Lavertonia	White Perfection, Brown's, pure white, purple disk, fine habit
Louisa, Gaines's	
Lady of the Lake, Gaines's	
Mount Blanc, Gaines's	



Digitized by Google
Published by Houlston & Son, 1844.

POPULAR FLOWERS.

THE AMARYLLIS;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT

IN ALL SEASONS.

WITH

A LIST OF AMARYLLIDÆ.

WITH A COLOURED FRONTISPICE.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH; S. J. MACHEN, DUBLIN.

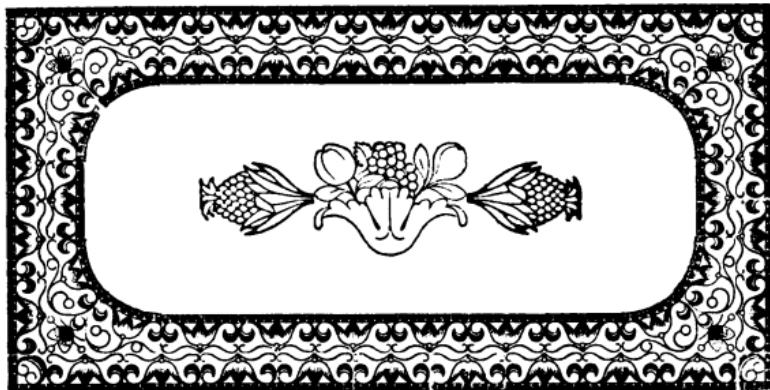
1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	49
GENERAL TREATMENT OF AMARYLLIS	50
AMARYLLIS VITTATA (<i>Striped Amaryllis</i>)	51
AMARYLLIS BELLADONNA (<i>Fair Lady Amaryllis</i>)	53
AMARYLLIS FORMOSISSIMA (<i>Jacobaea Lily</i>)	54
AMYRLLIS BEGINÆ (<i>Mexican Lily</i>).	ib.
AMARYLLIS BANKSIANA	55
GALANTHUS NIVALIS (<i>Snowdrop</i>)	56
CRINUM	57
CYRTANTHES	58
BRUNSWIGIA	58
NARCISSUS	59

The Frontispiece is a Portrait of "Amaryllis Vittata," drawn from the living plant, in the possession of Mr. Groom, Florist to Her Majesty, Clapham Rise. The name has been erroneously written on the plate Amaryllis "Vitata," read "Vittata."



THE AMARYLLIS.

INTRODUCTION.



THE flower, which we now propose introducing to the notice of the reader, is one of the most brilliant of the class to which it belongs. It is said, indeed, to have had its name given to it by Linnæus, who formed, with it and some of its nearest allies, the genus *Amaryllideæ*, on account of the splendour and brightness of the flower; it being commonly supposed that the word is derived from a Greek verb, signifying "to shine."

There are few flowers so splendid, so elegant, or so magnificent in their appearance as the Amaryllis. English florists have been very successful in the cultivation of this plant; and in a second degree, the florists of Belgium; while it is even now a complaint with those of France, that little is known of its cultivation by them, at

least as the result of experience; and as a consequence of this neglect, that the few they do possess are thrown into inextricable confusion by the reprehensible practice among inferior cultivators, of altering names, either by mistake, or from the desire of passing them off as new varieties.

The Amaryllideæ form a very extensive Natural Order, and as there is nothing in the cultivation of them that requires much detail, we shall notice, under separate heads, some of the most notable species.

They are all monocotyledones, and in the Linnæan system are in the sixth class (Hexandria), and first order (Monogynia).

These plants are very rarely found in the southern parts, and in the middle of Europe; but in Africa, beyond the tropics, they are very numerous, and also in tropical and meridian America. In tropical Africa, North America, and New Holland, very few have been discovered.

This family is one of the few among the monocotyledones, in which some of the plants contain poisonous properties. It is said that the Hottentots dip the heads of their javelins in juices obtained from several species of *Hæmanthus*, or blood-flower, a name given to them on account of the brilliant red colour of their flowers; and it is well known that both the bulbs and flowers of many kinds of *Narcissi* are powerful emetics.

GENERAL TREATMENT OF THE AMARYLLIS.—Mr. Sweet, whose successful cultivation of these gorgeous flowers is well known, has given the following directions for their treatment, and it has been found so admirably adapted to their

healthy growth, that they are in the main, if not wholly, acted upon by growers of the present day. "The bulbs being grown in frames and pits through the summer, they are to be removed in autumn to the hothouse so soon as they have ceased growing. They must then be laid on the shelves in the house, and as the leaves and roots begin to decay, they must be removed, lest their putrescence should penetrate to the bulbs. When the bulbs are become dry and hard, some of them will probably show flower, and some will continue through winter and spring in flower, when few other plants are in bloom. As soon as ever they show for flower they must be potted, as they draw up weak and do not flower so well if allowed to remain too long after showing bloom. As soon as potted, they must be placed in the hothouse, here little water must be given to them at first; but as the roots increase in quantity, the supply must be gradually augmented. There are some sorts which succeed better than others when turned out, such as *A. acuminata*, *crocata*, *fulgida*, *psittacina*, *reginæ*, *rutila*, and *vittata*; and the hybrids from these species. *A. aulica*, *calyptrotrata*, *solandræ flora*, and *reticulata* do not thrive so well when turned out; it is their nature to continue growing all the year through, and the hybrid productions from those partake of the nature of their parents. They only require to be kept dry a considerable time in their pots to make them flower, except any get sickly, or the mould gets soddened at their roots; they should then be laid by to dry for some length of time, or they are apt to rot."

AMARYLLIS VITTATA.—This being the plant the por-

f 2

Digitized by Google

trait of whose flower adorns our present treatise, we shall place it at the head of the notices of the most choice species of this tribe now in cultivation. *A. vittata*, so called because its white petals are striped or filleted with crimson, is distinguished by Mr. Loudon as the Superb Amaryllis, and most truly it merits the name. Twelve inches is the average height of the stem, from the summit of which its beautiful flowers are slightly pendent, displaying all the richness of the corolla as seen in the drawing. It is said to have been imported from the Cape of Good Hope in the year 1769, and has ever since been admired by the lovers of this family of bulbous plants.

AMARYLLIS BELLADONNA—*Fair Lady Lily*.—This species requires care as to situation to ensure success in the open ground. Dr. Herbert, who has paid much attention to the classification and cultivation of bulbous plants, says, “that though they are very hardy, two things are necessary to their flowering—a strong growth of the leaves, and absolute rest from Midsummer until their period of flowering in September. If the leaves sprout early, and are so much damaged by severe frosts that vigorous growth does not ensue in spring, or if they are preserved green by a wet summer after the period of rest, or if they have not moisture enough in September to promote the blossoming, it will fail.” In a pot these circumstances may, perhaps, be more easily regulated than when in the open ground, but if they be planted in a well drained situation under a south wall, there is no fear of their blooming beautifully. In such a situation it will not need to be disturbed even in the winter, but should simply be protected from wet by

some covering put over it, but sufficiently large to allow of free air.

The soil best suited to them is a sandy loam, though they will grow well in almost any kind, so that it be free from excessive moisture; it is also desirable that they should not be taken up to divide the roots, unless the plants be very crowded, as the loss of many is almost certain to follow such an operation; and experienced cultivators recommend that the leaves should not be artificially destroyed at any time.

In planting the bulbs of this splendid species, they should be put at least six inches below the surface; it must also be noticed that if they cannot be planted under a wall where the sun shines in its greatest power, they must be set in a situation where there is or can be supplied artificial heat, for without it, success in blooming them is doubtful,—failure all but certain.

In Hovey's Magazine of Horticulture, the following treatment of this Lily in pots is recommended:—"With soil composed of one half sandy loam, one fourth each leaf mould and old hot-bed manure, and a quantity of sand, equal to one third of the whole of the other ingredients, fill your pots, giving them ample drainage. In this compost place your bulbs in August, or early in September, leaving about one third of the top of the bulb above the surface; having well watered them through a fine rose, set the pots in the greenhouse or a frame, where the bulbs will speedily root, and send forth their flowers. It is from this stage of their growth that the bulbs require most attention, in order to ensure their blooming well another year. As soon as the flowers have faded, cut off the

stem just above the bulb; water them continually and freely, and they will soon put forth leaves; and by this treatment they will have attained their full size, in about two or three months; then diminish the supply of water gradually until the foliage has dried up. When they have arrived at this stage, place the pots on their sides upon a dry shelf, but not shaking out the bulbs; and in that state let them remain until the season for re-potting. During the growth of the plants they should be put in a sunny situation, and as near the glass as possible.

AMARYLLIS FORMOSISSIMA — *Jacobaea Lily.* — This magnificent flower is a perfectly hardy species, and blooms variously, according to circumstances, from May to August. The colour of the flower is a brilliant dark red. It was imported from North America in 1658. A little care however is requisite in their treatment; they love a rich soil, and when they begin to grow a plentiful supply of water. To keep them in a healthy flowering condition they must be taken up, when the bloom is over and the leaves are dried up, in Autumn, and kept in a dry situation so as to ensure them a period of perfect rest, a point absolutely necessary to ensure their blooming. They may be planted out in spring in a warm border, where they will seldom fail to flower.

AMARYLLIS REGINÆ — *Mexican Lily.* — This is a fine tall growing species, originally introduced into this country about 1728. It is one of the most tender of its kind, Mr. Herbert even doubting on that account whether it is really indigenous in Mexico. Some writers have sug-

gested the probability of its being a native of Vera Cruz. If left in the greenhouse late in Autumn, it almost invariably suffers, and seldom blooms except in a powerful stove. Varieties produced by hybridization of hardier species with this, require very much the same amount of heat. The flower, which expands in its greatest beauty in May and June, is a rich scarlet.

AMARYLLIS BANKSIANA.—This beautiful plant has recently been imported from the Cape of Good Hope: it is supposed that bulbs of this species were introduced many years ago, but it appears to have been lost; a leaf and flower of one very similar to this is in the Banksian Herbarium, from the gardens at Kew. It is a greenhouse bulb, and grows freely in a rich friable soil consisting principally of sandy loam. The chief points to be attended to in its treatment are to maintain it in vigorous growth, by placing it in a light situation, and furnishing it with plentiful supplies of water; and when the leaves have died off to keep it warm and dry. It flourishes in autumn, and is increased by offsets, or seeds when these can be ripened.

There are several other bulbs, which strictly belong to the family Amaryllideæ, though not commonly known under the name of Amaryllis; some of them are universally admired; but as in the generality of them there is nothing very peculiar in their treatment, we shall bring them before the notice of the reader, making such observations as may occur to us; and should a hint be taken whereby the beauty of the readers' plants may be im-

proved, these will not have been made in vain. First in order, and not least in repute, we have the

SNOWDROP.—*Galanthus nivalis*.—Which grows in almost every garden, and is by all admired. It remains in its earliest simplicity alone—no hand has presumed to attempt its hybridization with other species, in order to charm us with gay colours or enlarged forms of this pretty flower; and the treatment it receives is of the meanest kind. Blooming at a season when flowers are uncommon, it cannot be matter of surprise that it should be a great favourite with the poets. We shall give a specimen of the verses which it has excited from one or two of its poetical admirers. Mrs. Howitt says—

“The snowdrop ! ‘Tis an English flower,
And grows beneath our garden trees ;
For every heart it has a dower,
And old and dear remembrances !”

We have not space for Mr. Keble’s simple, yet elegant address to the Snowdrop, but we quote a verse recommending the reader to become more intimately acquainted with the author’s productions :—

“Thou first born of the year’s delight
Pride of the dewy glade,
In vernal green and virgin white,
Thy vestal robes, array’d !”

Bernard Barton calls it the Herald of the spring :—

“ The snowdrop, herald of the spring,
In storm or sunshine born ;
Some passing images may bring
Of being’s varied morn.”

CRINUM.—The species of this beautiful genus are very numerous, and require great heat and a proportionate humidity. They are chiefly indigenous to the tropics of America; growing to a tolerable size, and generally found in warm and shady recesses of the woods, and by the banks of water courses; and very rarely in open places. The flowers are very large and beautiful, the greater number agreeably odoriferous. Some few of them lose their leaves, at which period no water should be given, and they should be placed upon a shelf in the hot-house, and re-potted just as they commence vegetating. Deep pots suit them best and they require a rich soil. In re-potting them great care must be taken not to injure the roots, and any which are diseased or bruised must be cut away. Those species which do not lose their leaves require to be kept in a state of vigorous growth from February to November, when they must be gradually reduced into a state of repose if we would keep them in a healthy and flowering condition. Great heat, bright light, frequent repottings, rich earth, natural or artificially produced rest, are essentials in the successful culture of the *Crinum*. They are all of a stately character, growing from two to five feet high. Many very beautiful species have been recently imported; and planted in rich loam, with a little rotten cow dung intermixed, in large pots, they yield an abundance of bloom.

CYRTANTHES.—This is an elegant genus, all natives of the Cape, and require pretty much the same treatment as the Amaryllis. They must be well watered while growing, and the quantity gradually diminished as they sink

into a state of repose; scarcely any being given during winter, and wholly withheld from those which lose their foliage. They thrive best in a rich but at the same time light soil; thus a compost formed of well decomposed leaf mould, fresh maiden mould and exhausted manure from a hot-bed, or thoroughly rotten turf mould, well mixed together with a small portion of fine sand is well adapted to these generally delicate plants.

BRUNSWIGIA.—This genus, one of the most distinct of the Amaryllideæ, was formed by Heister, and has been adopted by Ker and Herbert. Its name was chosen by its author in compliment to the Royal House of Brunswick. The species which compose it are all indigenous to the Cape, and they flower before their leaves appear. They are generally more tender than the Amaryllis properly so called, and require no water when in a state of rest. They are all very beautiful plants, but the principal one is *Brunswigia Josephinae*. It is said to have been first introduced into Holland, when the Dutch held the Cape, where it did not flower until the sixteenth year after its importation. It then became the property of the Empress Josephine whose name it bears. It is recorded of this plant that it had more than sixty flowers on a single stem. Mr. Herbert says that nothing can be done to accelerate their growth, for they sprout once a year only, beyond keeping them in a healthy, vigorous state; for this purpose the bulbs must be kept under ground, with the neck perhaps above ground, though it is doubtful whether the whole should not be covered; for it is certain that if the bulb be completely exposed, it imbibes mois-

ture from the atmosphere during the season of rest, which proves fatal to it. A rich, light loam, with abundance of water in winter, and perfect rest and dry heat in summer are necessary.

NARCISSUS. — To the tribe of Amaryllideæ this favourite plant also belongs, and we take this occasion to introduce a few observations on its treatment which will apply almost equally to the generality of bulbs cultivated in the open ground.

Those bulbs raised from seed seldom flower until the fifth year of their growth, when they increase yearly in size and beauty until they have attained maturity. Light loam and a little dung are said to be most congenial to their habit.

They should be planted early in September, and some consideration is necessary before deciding on the places in your garden where you will put them, because they thrive best if they are allowed to remain where first planted; their removal once in three years is generally thought most advantageous. And when they are removed from one situation to another, it is recommended that they should be re-planted as soon as convenient after they have been lifted from the beds they occupied; the less time they are kept out of the ground, the less they will suffer by the removal. Bulbs just removed are affected by the wet earth lying upon them pressing too closely, and when they are planted in a cluster the effect is often rendered more injurious by the water draining through the interstices between the bulbs. An elevated border is recommended for them by Haworth, with a loamy soil, and a

winter covering of leaves, which is well adapted for the greater number of them. Indeed, there can be no doubt that they are less liable to rot if the border be raised, and that good drainage and a winter coat of leaves is important, if not essential to the more tender kinds, and some of them are not safe in the border without further protection.

We conclude this brief notice of the Narcissus, with the following beautiful lines from Keats :—

“ What first inspired a bard of old to sing,
Narcissus pining o'er the untainted spring?
In some delicious ramble he had found
A little space, with boughs all woven round ;
And in the midst of all a clearer pool,
Than e'er reflected in its pleasant cool,
The blue sky, here and there serenely peeping,
Through tendril wreaths fantastically creeping,
And on the bank a lonely flower he spied,
A meek and forlorn flower, with nought of pride.
Drooping its beauty o'er the watery clearness,
To woo its own sad image into nearness ;
Deaf to light Zephyrus it would not move,
But still would seem to droop, to pine, to love,
So while the poet stood in this sweet spot,
Some fainter gleanings o'er his fancy shot;
Nor was it long ere he had told the tale
Of young Narcissus, and sad Echo's vale.”



LIST OF AMARYLLIDACEÆ.

A. Amabilis, variegated.

Amoena, red
Atrorubens, dark blush
Augusta, scarlet
Aulica, greenish scarlet
— **platypetala**, orange
BANKSIANA
BELLADONNA, red
— **pallida**, flesh colour
Campanulata, purplish scarlet
Canaliculata, scarlet
Coccinea, Scarlet
Compacta, Red
Consanguinea, orange
Costata, striped
Crispiflora, scarlet
Crocata, vermillion
— **reginæ**, scarlet
Delecta, dark red
Decora, striped
Discolor, striped
Equestris, scarlet
— **major**, scarlet
— **plena**, scarlet
Expansa, dark red
Forbesii, purp. white
— **purpurea**, purple
FORMOSISSIMA, dark red
Fulgida, vermillion
— **Vittata**, violet
Glancesceus, red

A. Grandiflora, striped

Hoodii, scarlet
Ignescens, flame
Imperialis, scarlet
Intermedia, striped
Johnsoni, striped
Kermesina, carmine,
Macrantha, red
Multistriata, striped
Nervifolia, purp. red
Pallescens, purp. red
Patentissima, crimson
Patens, purple
Phœnicia, purple
Princeps, scarlet
Principis, scarlet
Psittænia, greenish scarlet
Pudica, pink
Pulchra, purp. white
Punctata, pale red
Pinpurasceus, purple
Quadricolor, striped
Recurvata, striped
Recurviflora, red
REGINÆ, scarlet
— **pulveruleuta**, scarlet
— **vittata**, scarlet
Reticulata, scarlet
Retiflora, scarlet
Retinervia, scarlet
Ringens, red white

LIST OF AMARYLLIDACEÆ.

A. Rosea-alba, red white

Rubescens, red

Rubicunda, red

Rubro-crocea, red saffron

Rugosa, striped

Rutila, scarlet

Sexmaculata, copper-coloured

Spathacea, red

Splendens, scarlet

Stenautha, red

Striatiflora, striped

Striatifolia, purple

Stylasa, red

A. Subbarbata, scarlet

Sulcata, striped

Superba, striped

Tortuliflora, scarlet

Tortuosa, green scarlet

Undulæflora, purple white

Variabilis, red white

Variegata, striped

Versicolor, variegated

VITTATA, striped

— major, striped

Vittafera, striped



POPULAR FLOWERS.

THE CALCEOLARIA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT

IN ALL SEASONS.

TO WHICH IS ADDED

A SELECT LIST OF NEW AND CHOICE PLANTS.

WITH A COLOURED FRONTISPICE.

LONDON :

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH ; S. J. MACHEN, DUBLIN.

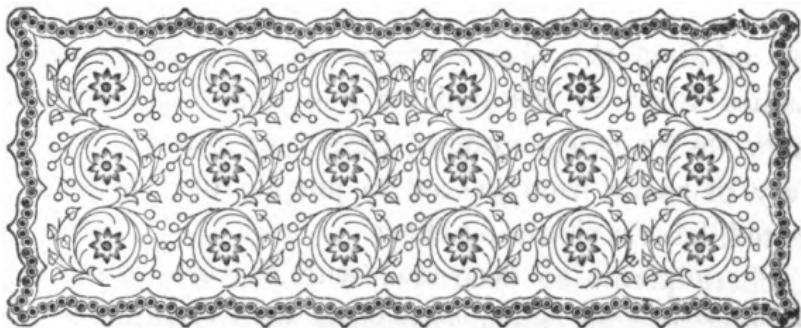
1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	61
PROPAGATION:	
BY SEED	65
BY CUTTINGS	66
BY DIVISION OF THE ROOTS	ib.
SITUATION	67
SOIL	ib.
REPOTTING	ib.
WATERING	68
TREATMENT WHEN FLOWERING	ib.
TREATMENT AFTER FLOWERING	69
WINTER TREATMENT	71
INSECTS	72

FRONTISPICE.—“Lady Constable,” from a beautiful specimen
in Mr. Groom’s collection.



THE CALCEOLARIA.

INTRODUCTION.

HERE are few denizens of the greenhouse more generally admired at present than the Calceolaria, which, within the last few years, has grown into favour with florists, as well professional as amateur; and those of the former class have turned their attention to the hybridization of the few species which we possess. How eminently successful their experiments have been, the magnificent specimens which have been exhibited at the different flower-shows amply testify; and their careful efforts have been well re-paid by the admiration expressed of the produce of their ingenuity. There can be no question that in this flower art has greatly improved nature.

There is nothing more beautiful or agreeable than a collection of the Calceolaria in full bloom. Their numerous pendant flowers, closely resembling and recalling to

the mind of the observer those of the Cypripedium, or Ladies' Slipper; the delicate and varied colours which tinge their velvety corollas, presenting almost every variety of shade from yellow to purple, blue perhaps excepted, have a charming effect.

These plants so decorated with flowers, form also a pleasing contrast when associated with Geraniums, Verbenas, Petunias, and other plants which form the bulk of a well chosen collection in a temperate greenhouse.

If Diocletian refused to abandon his villa, and the beautiful grounds which he himself had planted, to resume the empire he had voluntarily resigned, what would he think of those who now, possessed of all that can render life delightful—splendid mansions, extensive parks, magnificent gardens, to stock which every quarter of the known world has contributed its share—yet prefer to seek the giddy heights of ambition, rather than to enjoy the delights which nature has so abundantly given them.—

“ Methinks ”—says Cowley,

“ Methinks, I see great Diocletian walk
In the Salonian garden’s noble shade,
Which by his own imperial hands was made :
I see him smile, methinks, as he does talk
With the ambassadors, who come in vain
To entice him to a throne again.
‘ If I, my friends,’ said he, ‘ should to you show
All the delights which in these gardens grow,
‘ Tis likelier much that you should with me stay,
Than ‘tis that you should carry me away.
And trust me not, my friends, if, every day,
I walk not here with more delight
Than ever, after the most happy sight,
In triumph to the capital I rode,
To thank the gods, and to be thought myself almost a god.’ ”

To return to the Calceolaria; its name is usually said to be a diminutive of the Latin word *calceolus*, a shoe,

or slipper; whence its English name Slipperwort. Botanical names are commonly supposed to be most unmeaning, and to be arbitrarily compounded of words from the Latin or Greek, or any other language at the pleasure of the nominator; in this instance, however, this does not appear to be the case. The corolla of this flower, when the plant grows in a wild state, has a very great resemblance to a slipper; and it is not very far-fetched to say, that because it produces flowers like slippers, it is therefore a *slipper-maker*. Now, as *Calceolarius* is the Latin word, signifying a shoe or slipper-maker, by a change in the gender we have *Calceolaria*, which accurately denominates this slipper-making exotic.

The *Calceolaria* are herbaceous and shrubby plants; indigenous to Peru and Chili, where many splendid species abound, several of which have been introduced into England within the last twenty years.

It is recorded that the genus was erected in 1714, by a monk, Louis Feuillée, who was born in 1660, and died in 1732. His love of botany, and known acquirements in the natural sciences, brought him to the notice of Louis XIV., under whose instructions and favour he performed several voyages, that he might search out the unknown treasures of other lands. The results of his labours are contained in his "Journal," published in Paris, 1714—1725, being physical, mathematical, and botanical observations, made in South America, &c.

The genus belongs to the family *Serophularinæ*, in the natural system; and in the Linnæan, to the second class (*Diandria*), and first order (*Monogynia*).

The first genus since imported into Europe is *C.*

pinnata, which was brought from Peru in 1773. It is a tender annual, which is generally raised from seed in a hotbed, and will bear transplanting into the border with other annuals of the like habit. It grows about two feet high, and bears a pretty yellow flower.

The next in order of time is *C. Fothergillii*, or Fothergill's Calceolaria, imported from the Falkland Islands, in 1777. This species is an evergreen herbaceous perennial, but requires a frame. The plant is somewhat diminutive, and produces its orange-coloured flowers from May to August.

From this date a long interval had elapsed before any other species were sent home by the various botanical collectors. Indeed, the next recorded are five different species, in 1822, all bearing yellow flowers, from Chili; since which many others have been imported. Of these, because they vary in colour from those already mentioned, we may notice *C. purpurea*, a purple-flowered herbaceous species, from Chili; *C. Arachnoidea*, or cobweb-like Calceolaria, another purple-flowered kind from the same country. In 1829, a shrubby species from Peru, *C. bicolor*, with whitish-yellow flowers; and from Chile, in 1831, *C. crenatiflora*, or notched-lipped, yellow, spotted. In addition to these are several other species, and the predominating colour of the whole genus is yellow. From these, English florists have, by their ingenuity, procured an innumerable variety of hybrids of great beauty; the finest which we have yet seen is "Lady Constable," which we have selected for our frontispiece, and to which the artist has done ample justice, so far as space would allow. It conveys a very accurate

idea of the flower; but to give a drawing that would represent the massy clusters that grace the majority of these beautiful plants, a plane surface twelve times the size would be required.

In general the Calceolaria is a delicate plant, requiring great care, which however is fully repaid by the abundance of flowers which each plant will yield.

PROPAGATION.—There are three modes of propagating the Calceolaria,—by seed, by cuttings and by division of the roots.

BY SEED.—These plants are prolific in seed, which ripens freely in our climate; and by propagating in this manner, not only is the species multiplied and perpetuated, but almost invariably some new varieties are obtained as it were by accident. The seed is a very minute grain, so that great care is necessary in sowing it. Some mix a quantity of seeds with sand, and then sow the whole upon the surface of the pan in which the soil has been previously placed. The seed pans should be nearly filled with light earth, and when the seed is scattered over the surface, gently press it in with the hand, but do not cover it; then place the pan in a gentle hot-bed. Water must be applied continually, and if they be partially shaded from the glare of daylight, the seed will germinate more quickly, it being a fact well known to the merest tyro in vegetable physiology that up to a certain point, warmth and moisture are the main agents in the growth of a plant; but that so soon as leaves are formed, light becomes essential to its existence. Feb-

ruary and March is perhaps the best time to sow the seed. Then, with Dryden, you may apostrophize the genial season of spring—

“ Come, ye soft sylphs! who sport on Latian land,
Come, sweet-lipped Zephyr, and Favonius bland!
Teach the fine seed, instinct with life, to shoot
On earth’s cold bosom its descending root;
With pith elastic stretch its rising stem,
Part the twin lobes, expand the throbbing gem;
Clasp in your airy arms the aspiring plume,
Fan with your balmy breath its kindling bloom,
Each widening scale and bursting film unfold,
Swell the green cup, and tint the flower with gold;
While in bright veins the silvery sap ascends,
And reflux blood in milky eddies bends;
While spread in air, the leaves respiring play,
Or drink the golden quintessence of day.

When the seeds have germinated, admit full light and free air; and as the young plants increase in size, sprinkle a little fine earth among them, and keep the soil moderately moist at all times.

By CUTTINGS.—The shrubby kinds of the Calceolaria are most readily increased by this method. They root quickly if planted about the middle of July, in finely sifted rich sandy loam, and then plunged in a hotbed. Moderate watering will always be needful while these are forming their roots, and indeed at all times, according to the state of the weather. It is worthy of being noticed, that the shrubby kinds will do well in the open border in ordinary winters.

By DIVISION OF THE Roots.—This mode is best adapted to the propagation of the herbaceous kinds, that

is in which the stems die down to the root after they have done flowering. This may be best performed in the month of July, when the flower stems should be removed, and the root divided into as many pieces as there are germs of new stems, provided you can also separate along with each a sufficient quantity of roots to imbibe a due supply of nourishment for the young plant. These pieces must be set in similar soil for that recommended for cuttings, and treated in the same way.

SITUATION.—The majority of the Calceolaria tribe being very delicate herbaceous plants, by reason of their soft and cottony foliage, they require at the same time both a bright light and shelter from the direct rays of the sun. It is therefore advisable to plant them in pots, and during the summer season to place them in a situation open to the east, where, however, they will still need some protection from the morning sun.

SOIL.—The soil in which the different exotic flowers should be grown, is of far more consequence than is generally believed, or than a florist will commonly admit. We have no hesitation in saying that a suitable soil is of equal importance to a plant, with a due regulation of heat and cold, light and shade, dryness and moisture. The compost most suitable to the Calceolaria may be formed of fresh friable mould, pure peat earth, and partially decomposed leaf mould in equal quantities. To which, add a portion of white sand, equal to one-sixth of the above.

REPOTTING.—This operation should be performed in

autumn and spring. The Calceolaria does not form any excessive quantity of roots, and will not bear frequent disturbance of them. This circumstance in their habit requires great care in removal at the hands of the operator, who must carefully avoid breaking or bruising any of the filaments, and must not cut away any of those apparently defunct, unless he do it with a very sharp instrument.

WATERING.—From the peculiar organization of the Calceolaria, the state of the soil in which they are growing requires constant attention. Lack of moisture and the excess of it are equally fatal to the beauty of the flowers and the health of the plant. It is therefore of the utmost importance that water be given moderately, and often varying in quantity and frequency, according to the condition of the soil and the comparative dryness of the atmosphere. During the great heats of summer, the foliage should be lightly sprinkled by means of a syringe in the evening.

TREATMENT WHEN FLOWERING.—The singular and beautiful blossoms of this plant having now begun to expand themselves, it is found expedient either to remove them to a cooler place than that they have hitherto occupied, or to reduce the temperature of their abode by admitting all the air possible, and freely pouring water by means of an engine upon the glass of the house. This reduced temperature they will require throughout the flowering season, and that must be kept as equal as possible, as also due regard must be had to keep the soil in

which they are growing in a uniform state, for excess of moisture, or dryness, will cause the blossoms to drop off and the leaves to shrivel, when, indeed, we may remember Herrick's beautiful lines addressed to falling blossoms—

“ Fair pledges of a fruitful tree,
 Why do ye fall so fast?
 Your date is not so past,
 But you may stay yet here awhile,
 To blush and gently smile,
 And go at last.

“ What! were ye born to be
 An hour or half's delight,
 And so to bid good night?
 'Twas pity Nature brought ye forth
 Merely to show your worth,
 And lose you quite.

“ But you are lovely leaves, where we
 May read how soon things have
 Their end, though ne'er so brave;
 And after they have shown their pride,
 Like you, awhile, they glide
 Into the grave.”

But these will not diminish the self-reproach for our neglect, nor remedy the evil it has produced in allowing our favourite flowers to droop and lose their beauty; and not only that, but most likely the effect of our carelessness will be fatal to the plant itself.

TREATMENT AFTER FLOWERING.—“ The finer hybrid varieties of the Calceolaria are very sensitive of neglect, and difficult to manage when out of bloom; and then, indeed, it is not at all uncommon for them to perish altogether. This is caused in a great measure by the ex-

haustion of the plant, by profuse flowering, aided, no doubt, by the attacks of insects, the want of nourishment in the soil, and the great heat of the season.

After the plants have done blooming, or rather when they have become shabby—for they should not be allowed to perfect all their bloom—remove them from the greenhouse, and divest them of all the flower stems, and such of the leaves as have an unhealthy appearance; examine the roots to see that the drainage is free; remove the surface soil to the depth of one inch, and replace it with rich light sandy compost, taking care to place it well up round the base of the plant, so as to allow the young shoots to strike root into it; and if the plants are at all filthy, fumigate them slightly for several nights in succession with tobacco. When they are clean, place them in a warm shady corner, in a north-west aspect; and if a frame and sash can be spared to cover them in stormy or cold weather, it will be to their advantage; but they must be fully exposed at all other times. In the course of a month or six weeks after they have been thus treated, they will begin to produce shoots pretty liberally; and when these are about an inch long they must be thinned out, leaving sufficient to form a specimen-plant for another season, and using the remainder for propagation. At the same time cut the plant in to make it form a uniform head in the following season, but use the knife cautiously, as the *Calceolaria* is impatient of its operation.

In a week after the above are completed, the plants will require to be shaken out of their old pots, and to be repotted in smaller ones. In doing this proceed cautiously, that is, damage the old healthy roots no more

than cannot be avoided, but get as much of the old soil away from them as possible. The compost must be rather poor than otherwise for autumn potting; and should consist of turf loam, peat, and sand, in about equal proportions, with a sprinkling of leaf mould for the strongest growing plants. Be careful to drain your pots thoroughly, which will be best secured by using the inverted pot, and adding a larger sized one every time the plants are repotted, so that, by the time the plant gets into its blooming pot, there is a hollow cone through the centre of the ball of earth, which secures it against any stagnation of moisture, and also admits of a free ingress of air to the roots. I have practised this mode of draining the Calceolaria for some years past, and find it the best that can be adopted. When the plants are potted and replaced in a frame, they will require to be kept close and rather cool until they begin to make new growth, after which air must be freely admitted."—*Mr. Ayres, in Gardeners' Chronicle.*

WINTER TREATMENT.—In winter, the Calceolaria must be kept almost the whole time in a temperate greenhouse, where they will require to be examined very often, especially when the weather is damp, and cleansed from all mouldiness that may appear on them, or on the soil in which they are planted. The temperature of the house should vary from 50 to 55 deg., air being given early in the day and the house being closed again early in the afternoon. Here they must be kept growing gently, very little water being required at this season, but on no account should they at any time be allowed

to flag. For a succession of flowering plants those which are required to bloom first must be placed near the glass; and others must be gradually brought nearer to the light to follow them.

INSECTS.—Like the Pelargonium and the Cineraria, the Calceolaria are very much infested with the green fly, and consequently require frequent fumigation to destroy these marauders. It is found desirable to perform this operation about once a month all the time the plants are kept in the greenhouse.



A SELECT LIST OF CALCEOLARIAS.

Adventure, yellow spotted with chesnut	Delecta
Alba Perfecta	Desdemona
Alba maculata, pale yellow, spotted with purple	Diana, deep yellow
Antiquary, reddish yellow	Dulcis
Aurea maculata, cream colour, with a chocolate coloured spot	Dusty Miller
Arborea grandiflora	Eclipse, pale yellow, marked with a velvety crimson purple
Argentina Superb	Elegans
Asparagia	Emmeline
Ashtoniana, crimson purple	Emperor, yellow and purple
Atro Sanguinea	Enchantress, yellow spotted with red
Attilla	Eva
Baloon	Fairy Queen
— Major	Graciosa
Bride	Grand Duke
Brutus, yellow and purple flowers	Gem, crimson, black purple spot
Cameleon	Gigantic
Caroline	Gloriosa, yellow, orange spot
Celeste	Golden Sovereign
Chancellor, golden yellow and purple	Harlequin, reddish yellow
Cleopatra superba	Horace
Coquette	Incomparable
Coronet, yellow spotted with red	Isabella
Corymbiflora, pure fine yellow	Jehu
Cream	Juba
Crescent	Julia, yellow, spotted with purple
Delight, cream colour, purple spot	Lady Campbell
	Lady Constable
	Lady Peel, yellow, purple spot
	Lady Pukenharn, velvety red
	Lady Sale
	La Gitana

A SELECT LIST OF CALCEOLARIAS.

Lass of Richmond Hill	Queen of the Isles
Lavis	Queen of Beauties
— Superb	Royal Purple
Lord Byron, cream colour, and crimson rose	Rienzi
Magniflora Grandiflora	Sanguinea
— Superb	Satirist
Magnum Bonum, yellow and chocolate	Speciosa
Maid of Athens	Splendida
Master Humphrey	Sulphurea
Minerva, yellowish white	Sunbeam
Mulberry	Surpass Matchless
New Purple	Taglioni
Priestley's White, whitish yellow	Topaz
Prince of Wales	Victoria, yellow, shaded with purple
	Village Maid



Published by Houlston & Son, Paternoster Row Aug 1844

POPULAR FLOWERS.

THE VERBENA;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT

IN ALL SEASONS.

TO WHICH IS ADDED

A SELECT LIST OF NEW AND CHOICE PLANTS.

WITH A COLOURED FRONTISPICE.

LONDON :

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH ; S. J. MACHEN, DUBLIN.

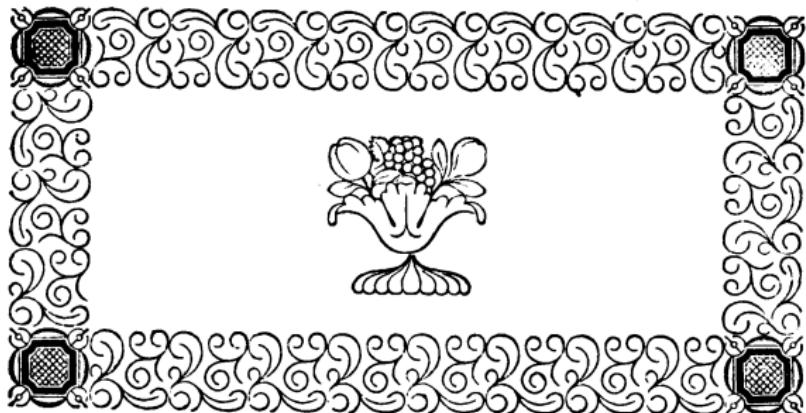
1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	73
GENERAL OBSERVATIONS	76
PROPAGATION :	
BY SEED	77
BY CUTTINGS	ib.
SELF PROPAGATION	78
SOIL	79
DRAINAGE	ib.
SPRING TREATMENT FOR VERENAS	80
TRAINING FOR BLOOMING.	ib.
VERBENA IN BEDS	81
TREATMENT OF AUTUMNAL ROOTED CUTTINGS	ib.
VERVAIN	82

FRONTISPICE.—“ *Verbena excelsa*,” from the living plant in the collection of Mr. Smith, Hornsey Road, to whom was awarded the first Prize at the last exhibition of the Royal Botanic Society, for a collection of twenty four Verbenas.



THE VERBENA.

INTRODUCTION.

“ The gentle flowers
Retired, and stooping o'er the wilderness,
Talk'd of humility, and peace, and love.”

POLLOK.

THE most gay productions of nature in the vegetable world have been found in the wildest scenes and in regions least trodden by the foot of man. Plants the most remarkable in their form, yielding flowers of extraordinary shapes, and most eccentric in their habits, and therefore calculated to excite the more the wonder and admiration of mankind, have sprung up and spread their beauties only in the eye of heaven, delighting only to kiss the warm breezes of tropical climes, instead of displaying their attractions before the never satisfied eye of human beings. As year after year passes by in the ceaseless roll of time,

H

the waste and the wilderness before unexplored by adventurous man are made to yield up their treasures for the gratification of the inhabitants of lands, less favoured with these remarkable and beautiful offsprings of bountiful nature. As Englishmen, we feel a glow of delight as we meet with the modest violet, or look upon the fields of king-cups and daisies interspersed among the cultivated fields of our native land ; the wild rose and honeysuckle variegating the thorny walls which protect the cornfields from straying cattle, with the holly's vivid green, all excite our fondest recollections ; the delicate colour and pretty form of the bindweed and harebell command a tribute of admiration. Shelley's dream of wild flowers is so full of fancy that we shall quote it here :—

“ I dreamed, that, as I wandered by the way,
 Bare winter suddenly was changed to spring ;
 And gentle odours led my steps astray,
 Mix'd with a sound of waters murmuring
 Along a shelving bank of turf, which lay
 Under a copse, and hardly dared to fling
 Its green arms round the bosom of the stream ;
 But kiss'd it, and then fled, as thou mightest in a dream.

There grew pied wind-flowers and violets,
 Daisies, those pearl'd arcturi of the earth,
 The constellated flower that never sets ;
 Faint oxlips ; tender blue-bells, at whose birth
 The sod scarce heaved ; and that tall flower that wets
 Its mother's face with heaven-collected tears,
 When the low wind, its playmate's voice, it hears.

And in the warm hedge grew lush eglantine,
 Green cowbine, and the moonlight coloured may,
 And cherry blossoms, and white cups, whose wine
 Was the bright dew yet drained not by the day ;
 And wild roses, and ivy serpentine,
 With its dark buds and leaves, wandering astray,
 And flowers azure, black, and streaked with gold ;
 Fairer than any wakened eyes behold.

And nearer to the river's trembling edge,
 There grew broad flag-flowers, purple prankt with white,
 And starry river buds among the sedge.
 And floating water lilies, broad and bright,
 Which lit the oak that overhung the hedge
 With moonlight beams of their own watery light;
 And bulrushes and reeds of such deep green,
 As soothed the dazzled eye with sober sheen.

Methought that of these visionary flowers,
 I made a nosegay, bound in such a way,
 That the same hues which in their natural bowers
 Were mingled or opposed, the like array
 Kept these imprisoned children of the hours
 Within my hand,—and then, elate and gay,
 I hasten'd to the spot whence I had come,
 That I might there present it!—Oh! to whom?

But however much wild flowers may be deservedly admired, who would now think of forming a bouquet of English wild flowers alone, when so many exotics have been naturalized, and found to be sufficiently hardy to grow in the open garden, rendering our parterres gay and attractive, and supplying rich and fragrant bouquets, to decorate our drawing-rooms and saloons.

Among these exotics there are few flowers that are likely to become more universally cultivated than the Verbena. There is only one species indigenous to Great Britain, *V. officinalis*, which by the ancients was held sacred, and used in diplomatic negotiations, sacrificial rites, and incantations; and worn by heralds in carrying messages of war or peace from one prince to another, while in later times it has been used for medical purposes, though now abandoned.

The first exotic species was imported in 1640, from which time, until the commencement of the present century, only two, (*V. aubletia* and *V. Lambertii*), of those imported, were deemed worthy of cultivation. Since 1818 several new and beautiful species have been introduced,

and the attention of professional florists has been directed towards their cultivation, and the improvement of the habit and flowers of these plants. Many beautiful hybrids have been obtained by cross impregnation, and it is considered so desirable as a Summer and Autumnal ornament of the flower garden, that prizes are offered by the leading societies for the finest specimens.

The different species of *Verbena* are chiefly half hardy herbaceous plants, doing well if planted out in beds in May, where they grow, and yield flowers, until cut off by Autumnal frosts, when the plants require to be removed to the greenhouse.

The *Verbena* is in the fourteenth class (*Didynania*), and second order (*Angiospermia*), of the artificial system of Linnæus, and in the natural order, *Verbenaceæ*.

GENERAL OBSERVATIONS.—The ligneous species of the *Verbena* may be cultivated in a temperate greenhouse, but are in general less deserving of cultivation than the herbaceous kinds. The varieties and hybrids obtained by florists within the last few years, from seeds gathered from various species, are very numerous, and it is already difficult to trace each variety to its original parents. The greater part of them are, however, procured from *V. Teucrioides*, *chamædrifolia*, *amæna*, *Tweddiana*, &c. The first of the preceding has furnished the most beautiful varieties of commerce by fecundation with the others, or with varieties obtained from them. They are pretty plants, flowering freely and abundantly, in continued succession for a long time, and the flowers in several varieties exhale a very agreeable odour.

PROPAGATION.—The Verbena is propagated by seed, by cuttings, and by division of the plants.

BY SEED.—We would recommend the amateur who is desirous of commencing the cultivation of this beautiful flower to purchase a packet of seeds and sow them in February, in shallow seed pans, filled with very light earth, and submitted to the influence of a gentle heat. They will require continual supplies of water administered by means of drawing the right hand sharply over the bristles of a clothes brush, held with the points upwards previously dipped in water, when the moisture will be thrown upon the surface of the seed, falling like “the gentle dew from heaven upon the tender herb beneath;” by this means he will probably gain several very pretty varieties, in the management of which he will experience greater delight, because they have been raised by his own care and attention. When they have formed a sufficient number of leaves to render their removal safe, they may be transplanted, and when the frosts are passed, they may be planted out in the garden in a warm situation, where they will most likely flower in the latter end of the autumn.

BY CUTTINGS.—The Verbena is freely propagated by cuttings, both in Spring and Autumn. The young growing shoots which have no flower-buds at their points should be chosen, cut off at a joint, and inserted about an inch deep in pots filled with sand or almost any light earth. They will readily form roots if the pots be placed in a frame and kept close, observing to shade them from the sun until the roots are formed. In less than three

weeks the cuttings will be ready to be potted off into sixties, when if it be autumn, the young plants may be placed in a greenhouse for the winter, or preserved in a pit where they will be protected from frost; or if space in either of these places be too valuable for such a mode of treatment, they will live through the winter in the striking pots. Mr. Paxton's plan is to take off cuttings in the spring, so soon as the plants have grown two or three inches, leaving the lower eye on the young wood of the old plant to grow; and plant them in a light soil rather thinly, when they form roots in about eight days. They are then potted off into sixties, and when there is no longer any fear of frost they are turned out into the open ground, into situations where they are required to flower. Those plants which are intended for stock the succeeding year are allowed to remain in the small pots till August, when they are potted off into forty-eights, and protected in a dry cold frame, or an airy part of the greenhouse through the winter.

SELF-PROPAGATION.—Nature has so constructed the Verbena, that like the Ivy and Periwinkle when placed in a favourable position it may be said to propagate itself. Availing ourselves of this natural propensity, the easiest and most certain method of increasing the stock of these plants, is by so placing pots filled with earth, that branches may be laid over them and pegged down to the soil. The pots will soon be filled with roots, when the newly formed plant will be no longer dependent upon the parent stem for its sustenance, but may be separated from it. This is most readily done in September when the plants are grow-

ing most vigorously, and after they are cut off from the old plant they should be repotted, and as winter comes on remove them into a cold frame ; or place them in the greenhouse. It may be observed, that in dwarf species, the pots may be sunk in the bed ; while in propagating the taller growing kinds the pots may be placed on a stage, and if the shoot be passed through the bottom of the pot, which should afterwards be filled with earth, the shoot projecting over the surface of the soil three or four inches, a handsome plant will be formed at once. The pots containing strong plants thus rooted, may be taken up, and sunk again in baskets or boxes of mould, and placed in a greenhouse or cold frame ; they will form fine plants by the following spring, and will flower immediately on being put down.

SOIL.—The Verbena will do well in any free soil ; but they are found by some to thrive best in a compost formed of one-half fresh loam, and one-fourth each of heath mould and well decayed manure.

DRAINAGE.—In the cultivation of the Verbena, ample drainage is essential to its healthy growth, nay even to its very existence, for without it, there is the utmost difficulty in preserving it, even in a frame or greenhouse. through the winter, the least damp being destructive to its tender roots ; while it is alleged that among rock-work and in similar situations, it may survive the winter even in the open air. A contributor to the *Floricultural Cabinet*, says, “that he placed an old flat hamper-lid six inches below the surface of a small bed, on which he

planted Verbenas, and that about the end of October he took up the whole bed which rested upon this hurdle, with the plants growing thereon, and removed them entire to a cool part of the greenhouse, where the plants continued to thrive throughout the winter."

SPRING TREATMENT OF VERBENAS.—Early in February the plants may be excited into growth by the application of increased heat and moisture, and when the roots have forced themselves through the bottoms of the pots, the first spring shift may be performed. The next larger sized pot may now be used, and the plants may be removed to the front of the greenhouse, so as to have all the light and air that can be obtained. It must still be borne in mind that the Verbena is very impatient of an excess of moisture, so that the soil should never be allowed to be *wet*. As the pots become filled with roots the plants must be continually shifted, until at length being removed to No. 1, they may remain in that size to bloom.

TRAINING FOR BLOOMING.—As the plants grow and put forth their flower buds some should be pinched off from time to time, by which means the strength of the plant will be preserved, and it will become more bushy and yield finer, though it may be not so numerous, clusters of flowers; but when they have been shifted for the last time, they should then be trained to a trellis, or allowed to hang over the sides of the pots, according to fancy; but no more shoots or flower-buds should be removed.

VERBENA IN BEDS.—This accommodating plant is one of the most suitable for planting in beds, especially where it is desirable to have patches of brilliant colours lying as it were upon the surface of the beds. Very few plants will suffice for a small bed, and as they grow the branches must be pegged down, being trained in the direction of vacant spaces, so as to cover at length the whole of the bed, which they will very soon do. We can conceive nothing more beautiful in a large flower garden than small various shaped beds covered with the bright scarlet, deep crimson, pure white, brilliant orange, rich purple, clusters which grow so profusely on this new but universally admired plant. Good taste in the arrangement of them, will render them when in full bloom, perhaps the most attractive feature in such a place.

Cowper's lines may well be appropriated by the varieties of Verbena, adapted to training on the ground—

“ Some clothe the soil that feeds them, far diffused,
And lowly creeping, modest and yet fair.”

while the next may be applied with equal propriety to those which are trained on trellis work, or as in some instances around the stem of large trees—

“ Some more aspiring catch the neighbour shrub
With clasping tendrils, and invest his branch,
Else unadorn'd, with many a gay festoon,
And fragrant chaplet, recompensing well
The strength they borrow with the grace they lend.”

TREATMENT OF AUTUMNAL ROOTED CUTTINGS.—These must be repotted as directed, for which purpose thirty-twos should be used, and a good thick compost of well rotted dung and loam; and as soon as all the cuttings are

thus treated give them a little water to settle the soil well about and among the roots; then remove them to a shaded part of the greenhouse until they have recovered the check upon their growth, occasioned by the shifting. When they have so recovered themselves they may be put in any other part of the house, or in a cold frame or pit, where during the winter water must be given very sparingly, and at all times when the weather is mild and fine, plenty of air must be admitted into the house; at other times when cold and damp, they must be kept well covered up. Thus treated they will live well through the winter, and be in a healthy condition to make a good start in spring.

VERVAIN.—A few particulars respecting the species of Verbena indigenous to this country may not be unacceptable, and we shall be particular in its description, that the amateur may, if he pleases, gather seeds, should he be able to find the plant, and in the succeeding year hybridize it with some of the exotic species.

Verbena officinalis, or common Vervain is a plant frequently met with by the road sides and in waste places, more especially near villages, in various parts of England, but becoming less common as we proceed northward. The stem grows erect to the height of one to two feet, rarely branched, except being panicled at the top. The leaves are rough with little prickles, they are lanceolate in form, the edges deeply cut like the teeth of a saw, or the leaf divided into three with the segments cut. The flower spikes are slender. The flowers, which are small grow in panicles and are rather distant from each other;

the calyx is rough; the colour of corolla is pale-lilac; and the plant is found in flower throughout the whole summer.

We have stated before that the Verbena was held sacred among the ancients and would here add a few additional particulars.

The Maji among the Elamites and Persians always carried a branch in their hand when they approached their heathen altars; and the Greeks cleansed the tables used in the feasts of Jupiter before the festivals. The Romans swept their temples and cleansed their altars with it, and sprinkled their sacred waters about their temples with the branches; and purified their houses in the same manner.

Drayton alludes to the custom of heralds and ambassadors wearing Vervain wreaths when on the public service.

“A wreath of Vervain heralds wear,
Amongst our garlands named,
Being sent that dreadful news to hear,
Offensive war proclaimed.”

By the Gallic and British Druids, Vervain was regarded with the veneration equal to that bestowed on the mistletoe, offering sacrifices, as the Greeks also did, to the earth, before they cut this plant in the spring, which was a very pompous ceremonial with them. In the words of Scott, we may speak of these superstitious usages, and rejoice that we live in an age when the darkness and ignorance in which alone such practices could be tolerated are entirely dispelled.

“ Dark superstition’s whisper dread
Debarr’d the spot to vulgar tread ;
‘ For there,’ she said, ‘ did fays resort,
And satyrs hold their sylvan court,
By moonlight tread their mystic maze,
And blast the rash beholder’s gaze.’”

Having ceased to be used for the purposes above stated, herbal medicines used it in various disorders, still pretending that it possessed some of the extraordinary qualities which had been ascribed to it by the pagan priesthood. They professed to cure, or greatly alleviate, scrophulous disorders by an ointment prepared from its leaves, directing that, at the same time, the root of the plant should be worn suspended by a riband at the pit of the stomach: while the fact is, that the dieting and powerful course of medicine with which they accompanied these prescriptions, were the real causes of the cures attributed to Vervain.



LIST OF CHOICE VERBENAS,

For a collection from which the first Prize was awarded by the Royal Botanic Society, at their last Exhibition, to Mr. George Smith, Tollington Nursery, Hornsey Road, London.

V. Array, Smith's.

Atro-purpurea.
Atro-sanguinea, Parson's.
Azurea-grandiflora, Stewart's
Burleyana.
Brilliant, Youell's.
Beauty Supreme, Parson's.
Blue Queen, Miller's, lilac-
blue.
Delicata, Smith's.
Excelsa, Smith's.
Elegance, Youell's.
Hislopeana.
Howardii, pink.
Igneia.
Ignescens, fiery scarlet.
Ingramii.
Modesty, White's.
Monroch, Youell's.
Orange-perfection.

V. Princess Royal, Youell's,

white.
Princess Alice, Parson's.
Perfection, White's.
Poulii.
Queen of Verbenas.
Renown, Girling's.
Striata, Smith's.
Tencroides celestina, Par-
son's.
Speciosa, Kyle's, orange.
Simperii, White's.
Stewartii.
Surprise, White's.
Surprise, Youell's.
Ne-plus-ultra.
Van Gentii.
Variabilis, White's.
Wonder, White's.
Xeuxis, Miller's.

V. Rosea magniflora.

Ivery's Queen, pure white.
Tweediana.
Elegans.
Jamesonii.
Davisoniana, rich shaded
crimson.
Majestica, very large, pink
and white.
Conspicua, light purple, white
eye.

V. Formosissima, rich shaded rose.

Bride, fine pure white, sweet
scented.
Prince of Wales, rich scarlet.
Leonora, lilac, sweet scented.
Brownleeana, purple, large.
Westongii, scarlet.
Ovid, fine purple.
Eximia, bright, rosy pink,
fragrant.

A SELECT LIST OF VERBENAS.

V. Sabini, lilac.	V. Tresor-parfait, bright violet purple.
Pulchella Alba, fair white.	Excelsa, deep rose.
Melindres Major, bright scarlet.	Delicata, fine blush, changing to pink.
Charlwoodii, red, dark centre.	Array, fine red, flowering freely, white eye.
Buisti, pink.	Striata, scarlet, striped pink.
Iveryana, sweet scented flowers.	Croft's Formosa Elegans, orange.
Teucroides, dense spikes of white flowers, sweet scented	Girling's Boule de feu, scarlet
Chandlerii, scarlet.	Lilacina, lilac.
Purpurea, purple.	Burleyana, pink.
Hendersonii, purple.	Julia Grisi, flesh coloured.
Symondsii, brilliant orange scarlet, free bloomer, easily preserved in winter.	Goliath, flesh coloured.
Defiance, bright rosy pink.	Bridesmaid, light blue lilac.
	Hally's Rosy Queen.
	— Rosea Alba.



POPULAR FLOWERS.

THE BALSAM;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH A COLOURED FRONTISPIECE.

LONDON:
HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH; S. J. MACHEN, DUBLIN.

1844.

Price Sixpence.

CONTENTS.

INTRODUCTION	85
GENERAL REMARKS	87
SEED AND THE PROPER TIME FOR SOWING IT	ib.
TREATMENT OF SEEDLINGS	88
LARGE PLANTS AND FLOWERS	89
DRAINAGE	90
LIGHT, AIR, AND WATER	91
BLOOMING	ib.
BALSAMS IN THE OPEN GROUND	92
EXPERIMENTS UPON BALSAMS	ib.
MR. M'ELROY'S TREATMENT OF THE BALSAM	93



THE BALSAM.

INTRODUCTION.

“ With fierce distracted eye Impatience stands,
Swells her pale cheeks and brandishes her hands,
With rage and hate the astonished grove alarms,
And hurls her infants from her frantic arms.”

DARWIN.



HERE are two species of the Balsam claimed as being indigenous to Britain, the yellow Balsam, which from its peculiarity in discharging its seed from the capsules on being slightly touched, has received the epithet *impatiens*, and is commonly called Touch-me-not, and in botanical works *Noli-me-tangere*. This species is found in Westmoreland, in Wales, and in Yorkshire; and very plentifully about the north end of Winandermere.

The other native species is *Impatiens fulva*, or Tawny-

flowered Balsam, which is found on the banks of the River Wey, in Surrey, and also on the margins of several of its tributary streams.

The Balsam is a succulent plant, annual in duration ; its leaves thin. The stem is nearly transparent, and thickened at the joints. All the species require a constant supply of water, and when deprived for a short time of the necessary quantity, the whole plant droops, but revives quickly if moisture be imparted before the privation has been too long continued.

The garden Balsam, which more particularly demands our attention, is one of the most beautiful of popular annuals, and under favourable circumstances, forms a shewy cone of finely variegated carnation-like flowers. It is a native of the East Indies, and is said to have been first introduced into English gardens in 1596, but this is uncertain, as also the name of the person importing it. We are informed by Doctor Turner that it was growing in Italy and some parts of England so early as 1564, and this statement seems corroborated to some extent by the figure of the plant which accompanies his description. Gerard called it the female apple blossom, and it would appear that he was ignorant of the country from whence it had been brought, though he says it thrives best in hot regions ; that it is a stranger in England ; and that it is cultivated in the cold countries only by great labour and industry.

Parkinson, so late as 1656, does not seem to have known its native country, at least he does not name it in his "Garden of Pleasant Flowers." He tells us that the seeds of the Balsam grown here are procured from Italy ; and he

further observes that the seed seldom ripened in England, especially in late seasons, and that, therefore, fresh supplies of good seed were constantly being required from abroad.

The Balsam, when grown to perfection, requires much time, labour, and attention, which indeed it well repays; but the amount of time and attention thus exacted seems to have operated against its general cultivation, and the consequence has been that English florists have much neglected it.

This favourite annual is placed in the fifth class (*Pentandria*), and first order (*Monogynia*), of the Linnæan classification, and in the natural system it gives its own name to its order—*Balsamineæ*.

GENERAL REMARKS.—The common Garden Balsam is, by some Botanists, considered to be almost a distinct genus from the *Impatiens*. Being an annual plant, we have only to view it with reference to the best mode of raising it from seed, and to its treatment afterwards so as to procure the strongest, most healthy, and most freely flowering plants, and then to its management while flowering. We shall first then make a few observations on the

SEED, AND THE PROPER TIMES FOR SOWING IT.—The seed which cries “*Ne me touchez pas!*” and flies from the capsule, where it has been ripened, the moment you approach it with rude hands, falls upon the surrounding soil, and if it be not accidentally disturbed or picked up by some one of the feathered tribe will germinate and grow in the succeeding spring; but if gathered we are told that the seed becoming dry will never germinate, though

planted under the most favourable circumstances ; we are somewhat sceptical on this point ; however, with respect to the seeds of the Garden Balsam, the most observant and intelligent florists assert that it is improved by being kept ; that the seed which has been ripened three years previously will produce better flowers than that which is newer ; and that this improvement in the quality of the seed goes on increasing from year to year until the ninth ; and that on the other hand seed matured in the previous Autumn, never produces double flowers.

We would recommend the Amateur florist to purchase his Balsam seed of a respectable seedsman, and sow them in rich light mould in seed pans in the beginning of April, and sink the pans in a cucumber or melon frame as recommended by Gerard, and still practised at the present day. This sowing will furnish you with plants for early flowering.

Early in May you may sow for a succession, and from these last you must expect to rear your very large plants, and look for your largest flowers.

If you have not the convenience of a hotbed, you may nevertheless grow them to great perfection. Sow your seeds in rich earth in a large pot nearly filled with soil, and place the pot in a warm window, covering it with a piece of common glass.

TREATMENT OF SEEDLINGS.—When the young Balsams are about two inches high, they may be potted off singly into sixties, and returned to the frame, and kept close until they have re-commenced growing, when air may be given ; these should be again shifted in a fortnight, and

this process of shifting must be continued until the plant has attained its full size ; at every shift the next sized larger pot must be used ; ample drainage supplied ; and the utmost care be taken not to break the ball of earth, or injure the roots. The soil should consist of light turfey loam, well decomposed dung, and leaf mould in equal quantities, together with a little sand. This compost will be found to suit them admirably.

The hotbed is certainly the best place while young, but the plants must be kept as near as possible to the glass ; or they will become drawn and will lose their chief beauty, which consists in being clothed from top to bottom with branches and flowers. The foliage too becomes yellow and sickly, and this is naturally of a fine green colour, the leaves being shaped something like those of the peach or almond tree. The habit of its foliage too is worthy of note, being peculiar and contrary to that of the generality of plants. It droops in the cool of the evening, and through the night, erecting itself in the heat of the day, when other plants are exhausted and fade.

LARGE PLANTS AND FLOWERS.—Fairweather, in a communication to the Horticultural Society, which was printed in their transactions, says that by transplanting only three or four times from No. 48 pots to those of eight inches diameter he produced Balsams “four feet high, and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these were covered with large double flowers.”

London says that to obtain large plants the seed should be sown in March, but a later authority recommends

May, and that so soon as the seedlings shew their first serrated leaves, they should be potted off singly in small pots filled with light rich soil, which you must plunge up to the rim in the frame, and when established prop up the frame at the back, so that they may have plenty of air. In about ten days after the first shift, remove them into a pot whose diameter is an inch greater than that they occupy, afterwards increase the time between each shift, and using the next sized pot. The soil should be light while the plants are young, but on each occasion of shifting, you must gradually diminish the quantity of sand, and use a stronger and richer compost, by using more loam and dung and less peat, so that by the time you have shifted them into the pots in which you intend them to flower, the soil may consist of two-thirds rich loam and one-third thoroughly decomposed dung. As the season advances, give on all favourable occasions abundance of air ; pick off all the first formed flower buds, and when your plants have attained the desired magnitude do not shift them again, but administer occasionally a little liquid manure. When they are arrived at this stage a hot-bed is not necessary. The plants should be grown short jointed, when they are more hardy, look neater, and are best adapted to the purpose of the amateur. The lights while the plants are in the hotbed, may be often taken off, but must be replaced early in the afternoon.

DRAINAGE.—This as in all potted plants requires marked attention on the part of the Balsam grower. A good sized piece of the side of a broken pot should be placed with the concave side downwards over the hole at the

bottom of the pot, and upon this a lot of loose large gravel so as to allow the water, not absorbed by the roots and the soil in which the plant is set, to flow freely away; for though the Balsam is impatient of drought, and begins to languish and droop the very moment the supply of moisture is inadequate; yet stagnant water rots the roots, and when these functionaries become diseased, the whole plant soon perishes.

LIGHT, AIR, AND WATER.—These essentials to the healthy growth of the Balsam must be provided for, and that at the proper season, or your plants will never yield you pleasure. If in the frame or house they must be kept close to the glass; and whenever the weather is fine and warm, they must be allowed all the air they can have in the forenoon and early part of the afternoon; and if placed under the direct influence of the sun, they will require to be watered several times in the day. Liquid manure occasionally given will be of service; and whether this or pure water be used, it should be of the same temperature as the atmosphere of the apartment in which the plants are placed.

BLOOMING.—The prevailing colours of the petals of the Balsam are red and white, the red extending to every shade of orange, purple, pink, lilac, scarlet, and especially carnation or flesh colour. Those are esteemed the most beautiful varieties which have the flowers double, and striped in the manner of a flake or bizarre carnation; but none of the varieties are permanent, nor can they be perpetuated by seeds, and the plant does not root

readily by cuttings. The bloom is naturally durable, and if sufficient air be given and the plants be protected from wind and rain, they may be preserved in flower through the autumn ; and their permanency may be still more promoted by picking off decaying leaves and newly formed seed pods. They will also require as constant watering as when growing.

BALSAMS IN THE OPEN GROUND.—These pretty flowers are occasionally seen in the open garden, sometimes, but very rarely, in beautiful condition. Should the amateur determine to try the experiment of growing them in such a situation, we should recommend him to choose a border with a south aspect, but well sheltered from cold winds. When they are first planted out here they must be sheltered from the sun for a few days, till they have taken root, and afterwards be abundantly supplied with water. In the gardens of Paris the Balsam may be seen in great perfection ; there they attain the size of a shrub, and are covered with flowers, ornamenting the royal gardens of the Tuilleries and Luxembourg. Some of the varieties bear double flowers as large as a moderate sized Rose.

EXPERIMENTS UPON BALSAMS.—The following experiments upon Balsams were made by Mr. Sangster, the flower gardener at Caprington Castle, and the results communicated to the *Gardeners' Chronicle* by Mr. Lymburn.

“ The Balsams were grown in a compost of one-third rotted manure, one-third rotted leaves, and one-third peat earth, with a little sand. The following manures

were applied in quantities of two ounces each, mixed with mould, and spread on the surface of the soil, fourteen days after shifting into pots of one foot diameter, namely, sulphate of soda, nitrate of soda, artificial guano, natural guano, and urate. The last killed the plant the first night. The first did most good, the plant treated with it coming into flower latest, growing and blooming stronger, and continuing longer in flower ; the others, as they followed in succession, were all superior to the one watered with pure water only. One dressed with quarter of an inch of the dung of domestic fowls was inferior to those dressed with the saline substances, but superior to the one with pure water ; while another watered with a solution of the same twice a week, was little improved. The plants were all very fine, and displayed the effects of superior cultivation." As a proof of the avidity of this plant for nutriment, it may be mentioned, that one growing at Sir William Maxwell's, at Calderwood, in 1842, which had been grown on an old spent hot bed, and instead of the roots being confined in a pot, they were allowed to luxuriate amongst the rotted manure ; the plant an immense bush, several feet in circumference, the whole being one mass of bloom.

MR. M'ELROY'S TREATMENT OF THE BALSAM.—The following was communicated to the *Gardeners' Chronicle* by Mr. M'Elroy, of Clapham Common :—“ Having some three year old Balsam seed, I sowed it in the first week of April, in twenty-four sized wide-mouthed pots, and placed them in a cucumber frame. When they were up, and had fully expanded their seed leaves, I removed them

where the branches of the different plants are allowed to entangle themselves among one another, as they spread over the whole surface of the bed, has a very good effect. In this way they will continue to bear their rich flowers from July to the end of October, should the weather continue mild.

COMPOST.—Equal parts of rich loam and well rotted dung from an old melon or cucumber bed, with a little sand.

MR. HEDGE'S TREATMENT OF THE PETUNIA.—Mr. Hedge propagates by cuttings in September, which are ready to be potted in the succeeding February, and he turns them out into the borders in the middle of May. In planting out he lays the ball on its side, and in that manner proceeds to cover the entire bed. When the plants are fixed he finds it necessary to secure them by pegging them down. In a short time the tops begin to rise; and in about a fortnight they have attained an erect growth. By this treatment they soon form a mass of flowers, with the ends not rising many inches from the ground, and as lateral shoots continue to grow, a continued and increased profusion of flowers is the result, the oblique position of the plants tending to cause an increased production of blossoms. The species which thrives best under this treatment is *Petunia violacea*, its stems being weaker than those of other kinds.

A LIST OF BOOKS
PUBLISHED BY HOULSTON AND STONEMAN,
65, PATERNOSTER ROW, LONDON.

WESTERN AFRICA;

ITS CONDITION, AND CHRISTIANITY THE MEANS OF ITS RECOVERY.

By D. J. EAST. Price 5s.

"A vast treasury of knowledge relating to the habits, propensities, and diversions of the aborigines is collected in this very important volume, and some of the fundamental errors of many who meant well, but performed miserably, in their treatment of the slavery question, stated and exposed, in language calculated to command both attention and respect. It is our author's opinion and our own, that Christianity should be taught to the poor negro even before civilization."—*Colonial Magazine*.

In Two Vols. 8vo, price 15s. cloth lettered, with Twenty-three Plates,

VEGETABLE ORGANOGRAPHY;

Or, an Analytical Description of the Organs of Plants. By M. AUG. P. DE CANDOLLE. Translated by BOUGHTON KINGDON, Esq.

"The translation of De Candolle's work on the Organography of Plants, by Mr. Boughton Kingdon, is a valuable addition to our botanical literature."—*Gardener's Gazette*.

"We most strongly recommend the work to all our readers who have a taste for plants, and more especially to all young gardeners."—*Gardener's Mag.*

THE PROVIDENCE OF GOD DISPLAYED IN
A SERIES OF INTERESTING FACTS FROM SACRED
AND PROFANE HISTORY. By the Rev. JOHN YOUNG, M.A.,
author of "The Record of Providence," &c. &c.

"Prayer gives a power to mortal man with heaven,
Deliverance thence from want of death is given,
And help, as needed, springs from sea or sod;
While awful judgments smite the foes of God."

A TEXT BOOK OF POPERY;

Comprising a History of the Council of Trent, and a complete View of the Theological System of Popery. By J. M. CRAMP. Second Edition, revised and enlarged. 8vo. 10s. 6d. cloth.

"An admirable work. Itself a library on the subject."—*The Bishop of Llandaff (Dr. Coplestone)*.

"A complete exposure of the imposture of the Papal Religion, by authorities the most unexceptionable, the most decisive, and the most condensing."—*Mendham's Memorials of the Council of Trent*, p. 156.

"The great excellence of the work before us is, that it makes Romanism speak for itself."—*American Biblical Repository*.

WORKS PUBLISHED

MRS. SHERWOOD'S POPULAR WORKS.

THE LADY OF THE MANOR, a Series of Tales and Conversations intended for the Middle and Higher Ranks of Young Females.

ROXOBEL. 3 vols. 12mo. 10s. 6d.

“A lovely exhibition of Christian character, displayed in the various stages of life, amid circumstances of trial and enjoyment.”

STORIES EXPLANATORY OF THE CHURCH CATECHISM. 12mo. 5s.

“Let any one read Mrs. Sherwood's beautiful Stories on the Church Catechism, and he will be satisfied that even catechisms can be made bewitchingly interesting.”—TODD.

THE GOVERNESS; or the Little Female Academy. 12mo. 5s.

* * * Besides numerous incidents and conversations, the following Tales are included in the Work:—

History of Princess Rosalind.
Albert de la Hauteville.
Emily and her Mother.

Miss Fanny; or the hard-hearted little Girl.
Lady Faulconbridge and her Children

THE INFANT'S PROGRESS, from the Valley of Destruction to Everlasting Glory. 12mo. 5s.

THE INDIAN PILGRIM; or the Progress of the Pilgrim Nazarenee, from the City of the Wrath of God to Mount Zion. 12mo. 4s.

LITTLE HENRY AND HIS BEARER. 18mo. 2s. 6d.

THE SEQUEL TO DITTO, being the **HISTORY OF THE LAST DAYS OF THE BEARER.** 18mo. 2s. 6d.

A WHISPER TO A NEWLY-MARRIED PAIR, FROM A WIDOWED WIFE. By the Author of “Poems for a Sick or Melancholy Hour.” 12mo. 3s. 6d.

“We are indebted to the fair author of this useful volume, who has put us distinctly in the way to enjoy

‘Domestic happiness, the only bliss
Of Paradise that has surviv'd the fall.’”—*Literary Gax.*

HOULSTON'S GLEANER. A Selection from the Works of Authors who have written for the Benefit of their Fellow Creatures, particularly intended to furnish the Working Classes with Hints for the advancement of their comfort and respectability. 12mo. 2s. 6d.

BY HOULSTON AND STONEMAN.

BY MRS. TAYLOR AND MISS JANE TAYLOR.

MATERNAL SOLICITUDE FOR A DAUGHTER'S BEST INTERESTS. By Mrs. TAYLOR. Thirteenth Edition. 3s. 6d.

THE PRESENT OF A MISTRESS TO A YOUNG SERVANT, consisting of Friendly Advice and Real Histories. By Mrs. TAYLOR. 2s. 6d.

"We are happy to announce another publication of this judicious and useful writer, particularly as we think that the present will be found among the most valuable of Mrs. Taylor's productions."—*Monthly Review*.

PRACTICAL HINTS TO YOUNG FEMALES, on the Duties of a Wife, a Mother, and a Mistress of a Family. By Mrs. TAYLOR. 5s.

"The Duties of a wife, a mother, and a mistress of a family, are admirably portrayed and most successfully urged in this little volume. It is a book that will be placed in the hands of those who are to fill those enviable situations, with the utmost advantage. The short religious portion at the conclusion is warm, affectionate, and just, but not tinged with the slightest spirit of fanaticism."

DISPLAY. A Tale. By JANE TAYLOR, one of the Authors of "Original Poems for the Infant Minds. 5s.

"The Author of Display comes the nearest to Miss Edgeworth in point of style and skill in developing characters, of any writer that has yet appeared, but her production is distinguished by features of its own. We never met with any composition so completely and beautifully simple both in sentiment and style, which at the same time interested us so strongly by the *naïvete* of its descriptions, sometimes heightened by the most delicate touches of humour and pathos; by the *heart* that pervades the narrative, and the air of reality which is thrown over the characters."—*Electric Review*.

CORRESPONDENCE BETWEEN A MOTHER AND HER DAUGHTER AT SCHOOL. By Mrs. TAYLOR and Miss TAYLOR.

"We have always closed the volumes produced by each of these ladies under the influence of the most pleasing impressions. In the work before us they have united their efforts, and have formed not only a very interesting, but a very useful work. We heartily recommend the volume to our female friends, matronly and juvenile."—*Monthly Review*.

JAIRUS; OR, THE HOME MISSIONARY; a Narrative of Facts. By the Rev. JOHN YOUNG. 12mo. 3s. 6d.

By the same Author,

THE RECORD OF PROVIDENCE; or the Government of God displayed in a Series of Interesting Facts from Sacred and Profane History. First and Second Series. 12mo. 5s. each.

WORKS PUBLISHED BY HOULSTON AND STONEMAN.

BY MRS. CAMERON.

THE FARMER'S DAUGHTER. Foolscap 8vo.,
price 3s. 6d. cloth.

"The tasteful getting up of this little volume is its least recommendation, the matter being very pleasing, and very profitable. We may refer to this work as an exemplification of what we regard as an allowable use of fiction, for the communication of moral or religious instruction, as contradistinguished from the system on which what are called 'religious novels' are usually constructed, and of which we desire on every occasion to express our strongest censure. We have here no highly coloured love scenes, no turgid theatrical speeches, no romance either of incident or feeling, but a simple story—a truthful, and therefore an interesting, transcript of the vicissitudes that are continually occurring in domestic life—is made the vehicle of communicating a wisdom that is sound because it is scriptural, and practical because it is evangelical. We know few books of its kind that we would more unhesitatingly place in the hands of a young female, especially if her own position in society should be that of a Farmer's Daughter."—*Watchman*, Sept. 6, 1843.

OUR NEIGHBOURHOOD. 12mo. 5s.

THE TWO MOTHERS; or, Memoirs of the Last Century. 12mo. 5s.

THE USE OF TALENTS. 12mo. 3s. 6d. cloth,

THE FRUITS OF EDUCATION; or the Two Guardians. 12mo. 3s. 6d.

THE NURSERY MAGAZINE. 5 vols. at 3s. 6d.

FANNY AND MARTEL, being the Sequel to the Nursery Magazine. 18mo. 3s. 6d.

EMMA AND HER NURSE. 18mo. 2s. 6d.

MARGARET WHYTE.

HOULSTON'S LITERARY SCRAP BOOK; or Literary Miscellany of Rational Recreation. 18mo. 3s. 6d.

"A collection of beauties drawn from various sources by the Editor, possessing a rich fund of amusement, free from every thing obnoxious to the pious Christian."

In one thick vol. foolscap 8vo. 593 pp. bound in cloth, price 5s. 6d.

THE CHRISTIAN'S DAILY PORTION;

Or, Golden Pot of Manna. By the Rev. J. BURNS, author of "Sketches and Skeletons of Sermons," &c. &c. Containing Three Hundred and Sixty-five Exercises on the Person, Work, and Glory of the Redeemer.

Strongly recommended by the Rev. Dr. Harris, Rev. A. Farrar, Rev. Dr. Beaumont, Rev. Thomas Stephenson, Rev. W. Pickering, Rev. Joseph Sutcliffe, M.A., Rev. Dr. Cox, the Congregational Magazine, Revivalist, Evangelical Magazine, Watchman, Christian Advocate, Young Men's Magazine, Baptist Magazine, &c.

THOS. HARRILD, Printer, Silver Street, Falcon Square, London.



ERODIUM

Digitized by Google

POPULAR FLOWERS.

THE PHLOX;

Its Propagation,

CULTIVATION, AND GENERAL TREATMENT,

IN ALL SEASONS.

WITH A LIST OF SPECIES AND VARIETIES.

WITH A COLOURED FRONTISPICE.

LONDON:

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.

J. MENZIES, EDINBURGH.

1844.

*Price **Sixpence.***

CONTENTS.

INTRODUCTION	105
PROPAGATION	107
BY SEED	ib.
BY CUTTINGS	ib.
BY DIVISION OF THE ROOTS	108
GENERAL TREATMENT	ib.
SOIL	ib.
SITUATION	ib.
PLANTING OUT	109
WATERING	112
DRAINAGE	113
PHLOXES IN POTS	ib.
WINTER PROTECTION	ib.
PHLOX DRUMMONDII	109
CULTIVATION OF DITTO	ib.



THE PHLOX.

INTRODUCTION.



HERE are few flowers among the multitudinous variety of plants which have been brought by botanical collectors from far distant regions, and naturalized in the gardens of England, more deserving of attention and cultivation than this pretty native of North America.

The first species that was imported of this genus is *Phlox glaberrima*, which was introduced in 1725; it bears a red flower from June to August. It does not appear to have excited much interest among the florists of that day, for a considerable time elapsed before any other species was imported. The number of species, since 1732, has been gradually increasing, and as its habit and cultivation have become better understood, it has gained

an accession of admirers ; and it has now worthily found its place among our most popular perennials.

The genus now comprises about fifty species, to which may be added a considerable number of varieties, raised by the ingenious hybridization of different species, and it may now be said that not many genera of hardy plants can afford such a rich assemblage of beautiful flowers as the Phlox.

To the claims which the beauty of the Phlox so eminently puts forth for our admiration, may be added those properties which so well merit the notice of the amateur gardener, and render this flower one of the most suitable for his purpose. When we say that nearly every species of this somewhat extensive genus is perfectly hardy, and that that small number which does require protection, needs very little ; we think that every florist, however humble may be the plot of ground which he cultivates, will be anxious to place some of them in his collection. They are, moreover, easy of cultivation, and there are so few difficulties in their treatment, that whoever has the least knowledge of the nature of vegetable life cannot fail in growing them to his satisfaction.

There are also peculiarities connected with the different species of this flower, which fit them for various purposes in the tasty arrangement of a flower garden ; the height to which they grow, and their habits, are very various ; and the colours of their blossoms are perhaps still more varied, for we find nearly every shade of colour in white and red, in lilac, and cerulean blue.

And what other inducement is there for the amateur to cultivate this flower ? The observant may have noticed

the character and form of the majority of our autumnal flowers, the China Aster, the Chrysanthemum, the Coreopsis, the Everlasting, and others; that their flowers are syngenesious, that is, with florets growing from the centre, and the whole flower presenting the appearance of a radiating star, and by far the greater part of them bear yellow blossoms: now in the Phlox, we have a flower of a totally different character, growing in terminal spikes, and the most prominent colours are red, white, and purple; it is also an autumnal flower, thus supplying a desirable contrast to the hitherto almost universal similarity of autumnal flowers as to form and colour.

The subject of our present treatise naturally falls into the fifth class (*Pentandria*); and the first order (*Monogynia*), of the Linnean classification; and into the order *Polemoniaceæ*, of the natural system.

PROPAGATION.—This beautiful plant is propagated in three ways; by seed, by cuttings, and by division of the roots.

By Seed.—This mode is adopted when varieties are desired, and of course it is the only plan by which we can procure hybrid varieties, many of which, produced in this country by our scientific florists, are worthy of the highest admiration.

By Cuttings.—Established varieties and species can only be propagated and increased with a certainty of preserving the distinctive characteristics of the plant, by means of cuttings or division of the roots. The first plan

is chiefly used in multiplying dwarf kinds ; and the cuttings require to be planted under a hand-glass, or in pots of sandy loam ; and also for preserving and increasing newly raised and approved varieties, of which the professional florist is desirous of obtaining a stock.

BY DIVISION OF THE Roots.—This method of propagating the Phlox is most usual with the species and varieties which throw up annual stems. The present year's stems having produced leaves, flowers, and seed, they die off, and a greater number of young shoots spring from the old root, which being carefully divided into as many pieces as there are incipient plants, each shoot will under proper management, form a handsome flowering plant in the succeeding year. The root should not be cut into very small pieces, nor is it desirable to divide a plant more than once in two or three years, because if done annually, though the number of plants is increased, yet the strength of each individual is greatly reduced, and many will probably sicken and die.

GENERAL TREATMENT.—SOIL.—The soil which is found most agreeable to the Phlox is good turfy loam, enriched and rendered light by the incorporation of leaf mould well decayed ; and the beds of this soil, formed for the reception of these plants, must be at least eighteen inches deep, and are preferable if made twenty-four inches deep.

SITUATION.—A damp situation should be selected, but it is of importance that good drainage may be readily

provided ; for though it is well known that these plants will not flourish unless they have an ample supply of moisture, yet if the soil be of such a character as to retain an excess of it, they will not thrive. It is a good plan to constantly disturb the surface soil, for by this method the sub-soil is kept damp.

PLANTING OUT.—A collection of Phloxes forms a pretty object when the varieties are well arranged. It is undoubtedly the best mode of cultivating them, to plant them in masses in beds allotted to them alone. If the bed be so situated that there is a walk around it, the tallest kinds should be planted in the centre, and the next less size round them, and so on until the dwarf varieties are nearest the edge of the bed. When the bed is against a wall, then the loftier plants must be set nearest to the wall, the rest gradually diminishing to the front of the bed. A careful attention to this, with some regard to the harmony of colours, will secure a handsome display of these beautiful flowers ; while if the precaution be neglected and they be stuck down in a bed by chance, without reference to habit or colour, they will present a confused and very unsatisfactory appearance.

We have added the following list of fifty kinds of Phlox, arranged according to the height they usually attain, which we have extracted from the Floricultural Magazine ; it will, we think, be found of great service to those who delight to see their flower beds well arranged.

1. Plants prostrate, not herbaceous, from four to six inches.

1. *floridanum.*

Nuttalliana.

2. *setacea.*

3. *nivalis.*

aristata.

4. *subulata.*

5. *reptans.*

stolonifera.

6. *reptans*

crassifolia.

verna.

7. *procumbens.*

2. Plants herbaceous, from nine to twelve inches high.

1. *divaricata.*

2. *ovata.*

Listoniana.

3. *canadensis.*

4. *pilosa.*

5. *pilosa*

amaena.

3. Plants herbaceous, from one to two feet.

1. *Brownii.*

2. *Youngii.*

3. *Omniflora.*

4. *Atkinsii.*

5. *Suffruticosa.*

6. *Glaberrima.*
7. *Paxtonii.*
8. *triflora.*
carnea.
Hookerii.
9. *suaveolens.*
10. *variegata.*
11. *Lorranii.*
12. *Thompsonii.*

4. Plants herbaceous, from two to three feet.

1. *virginica.*
2. *tardiflora.*
longiflora.
3. *Bridgesii.*
4. *elegans.*
5. *elegantissimus.*
6. *Alcardii.*

5. Plants herbaceous, from three to four feet.

1. *acuminata.*
decussata.
2. *læta.*
3. *acutifolia.*
4. *corymbosa.*
5. *latifolia.*
6. *Wheeleriana.*
7. *Ingramiana.*
8. *Riversii.*
9. *Patsii.*
10. *penduliflora.*

11. *odorata.*
12. *reflexa.*
- marylandica.*
13. *Jenkinsonii.*
14. *Coldryana.*
15. *Splendens.*

6. Plants herbaceous, from four to five feet.

1. *paniculata.*
2. *alba.*
3. *grandis.*
4. *Broughtonii.*
5. *cordata.*
6. *cordata grandiflora.*
7. *scabra.*

Americana.

Sickmanii.

WATERING.—The Phlox is one of those plants that are alike impatient of excessive dryness, and of a superfluity of water. The consequence is that it requires to be kept sheltered from heavy rains during winter, and to be supplied with abundance of water in summer. It will not be necessary to give these supplies continually if the ground be well watered at once, but great attention is necessary that too long a time be not allowed to elapse between each application. For it can never be sufficiently impressed upon the minds of the amateur, that some of our choicest exotics are fatally injured by carelessness in this part of their treatment. The plant may be in the full vigour of its existence at night, having derived full benefit from the aqueous food

given to it perhaps the day before, but from an extraordinary dryness of the atmosphere, now nearly exhausted; and this same plant may be seen on the following morning with its leaves drooping, and gradually shrivelling up while the flowers that were in all their beauty, and the buds just bursting forth are shrunk up, and probably fallen from the plant.

Again, the plant may be thriving well, and a supply of water too abundant for its necessities may be given, and if the excess have no course by which it can flow away, the plant is almost drowned, and in many cases all the bloom is destroyed. From this we pass to

DRAINAGE,—which is desirable in summer to carry off all the water that is not required, is of greater importance in the winter, and to no plant more than the Phlox. Some of the species are not materially affected by cold, and where sufficient drainage is provided, they will survive the winter; in situations where this provision has not been made, the excessive wetness of our winters has been fatal to many of them.

PHLOXES IN POTS.—These are occasionally cultivated in pots, and if treated with care form beautiful objects. They add much to the gaiety of a collection when intermingled with other plants in large houses. By a writer in the “Floricultural Cabinet,” the varieties *Omniflora*, the best white, and *Reflexa*, the best purple, are said to prosper well under this treatment.

WINTER PROTECTION.—There is one quality possessed

by the Phlox which renders it of peculiar value to the amateur who possesses neither greenhouse or frame, they are perfectly hardy; we had almost said without exception, but this would not be true, for there are some kinds of them which do require a little protection, but it is very simple. Of these are *P. floridanum* and *P. nivalis*, which will survive the winter, if covered round the stems with dry saw-dust, and sheltered from wet, by a small hand-glass, or even an inverted flower pot.

PHLOX DRUMMONDII.—This, the only known annual variety of the Phlox, is esteemed one of the most valuable annuals we possess, and justly so. It was found at Texas, in 1835, by Mr. Drummond, a gentlemen engaged in collecting new plants on behalf of the Glasgow Botanical Society. Mr. Drummond, shortly after, was seized with fever, at Cuba, which proved fatal; he was in the very prime of life, and by his death the science of botany was deprived of a devoted follower. Sir W. J. Hooker, in order to preserve the memory of this gentleman's labours, named the Phlox, Drummondii. It is now become very common, as it yields its seed in abundance; and some ten or a dozen different coloured flowers may be obtained from the seed of one plant. It was at first supposed that it would require a greenhouse, but it was soon found that it would flower better in the open air; and we can scarcely imagine a more pleasing sight than a bed filled with these plants when in full bloom. They have been grown with great success at the Horticultural Gardens at Chiswick; and we think we cannot do better than give the method adapted in the

CULTIVATION OF PHLOX DRUMMONDII, as practised at these gardens.—“The seeds are sown about the end of March in pots filled with a light sandy soil, and placed on a moderate hotbed, or in a cucumber or melon frame. In this situation they soon germinate, and before the first rough leaf appears they are potted off, three or four together, into a large sixty pot, the plants being placed at equal distances round the sides. When potted, they are then returned to the frame and kept close for a few days to recover from the effects of their removal; after which they are gradually hardened off by giving them plenty of air during the fine weather; finally about the beginning of May, they are removed to a cold pit or frame, where they can be fully exposed during the day, covering them with the lights only at night, and in bad or cold weather. About the end of May, when all danger of late spring frost is over, they are planted in the open border. The soil into which they are transferred is a light rich sandy soil or peat, with which a little well rotted dung has been mixed. The plants require to have a little water once or twice after they are planted, especially if the weather is dry at the time, but it is advisable not to water them after they are once well established. The chief causes of failure are sowing the seeds too soon, or allowing the plants to get very dry or pot bound before they are planted out, if once they become stunted they will never make good plants; and the same may be said of those which have been kept in too warm a place.—*Gardener's Chronicle.*

Handsomely Bound in Cloth, Price One Guinea,

THE

SENTIMENT OF FLOWERS;

Or, Language of Flora.

“ In Eastern lands they talk in flowers,
And they tell in a garland their loves and cares :
Each blossom that blooms in their garden bowers
On its leaves a mystic language bears.”

THIS WORK teaches the eloquent language referred to in the above beautiful lines. As in the East, so in the fair island of Britain, “ flowers are here made to speak the language of sentiment.”

This Edition is illustrated with TWENTY GROUPS OF FLOWERS, drawn and coloured by JAMES ANDREWS. The Work may still be had in Twenty Parts, at One Shilling each, each Part containing a Group of Flowers and Twenty Pages of Letter-press.

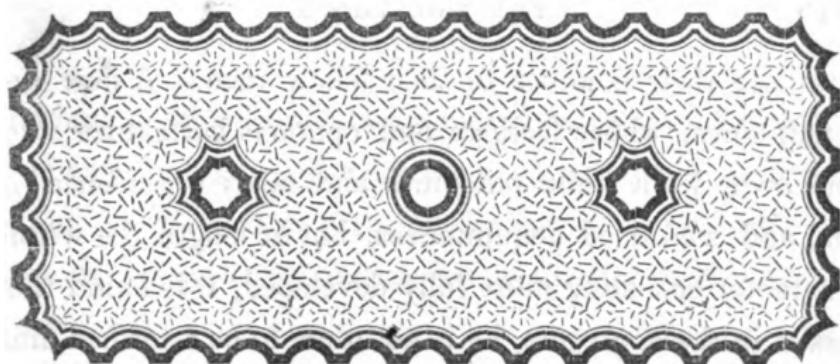
LIST OF GROUP.

PART.

- I.—White Jasmine ; China Rose ; Common Garden Pink ; Purple Violet.
- II.—Tulip (Captain Lampson) ; White Lily ; Chandler’s Fuchsia.
- III.—Scarlet Pimpernel ; China Aster ; Blue Hepatica ; Ivy.
- IV.—Honeysuckle ; White Violet ; Pansies (var. Queen Victoria and Paul Pry.)
- V.—Primrose ; Blue Bottle Centaury ; Mezereon.
- VI.—Wallflower ; Bee Orchis ; Sun Flower ; Poet’s Narcissus.
- VII.—Trumpet flower (Bignonia) ; Forget-me-not ; Bramble.
- VIII.—Amaryllis ; Buckbean ; Lily of the Valley.
- IX.—German Iris ; Scarlet Ipomoea ; Laurestinus.
- X.—Lucern ; Hollyhock ; Evening Primrose.
- XI.—Marygold ; Cypress ; Campanula.
- XII.—Thrift ; Dog Rose ; Broom.
- XIII.—Crown Imperial ; Cineraria ; Poppy.
- XIV.—Broom ; Borage ; Geranium (Gaines’ King).
- XV.—Ten Week Stock ; Lilac ; Venus’ Looking Glass.
- XVI.—Wheat ; Clove Carnation ; White Rose.
- XVII.—Nightshade ; Bindweed ; Heath.
- XVIII.—American Cowslip ; Ranunculus ; Heliotrope.
- XIX. { Garden Anemone ; Harebell ; Spiderwort.
- XX. { Rose ; Convolvulus minor ; Scarlet Geranium.

HOULSTON & STONEMAN, 65, PATERNOSTER ROW.





THE HOLLYHOCK.

INTRODUCTION.

HE Hollyhock seemed well nigh to have disappeared before the raging fashion for Dahlias, and were not commonly to be found except in the cottage garden of some rustic florist whose steps rarely wandered to the nearest town, and whom, on such occasions, his business and his thoughts of home have not permitted to notice the novelties of the flower garden, or to hear the praises of that favourite autumnal flower; or he too might have expelled his old acquaintance the Hollyhock, and promoted the Dahlia to its place.

The Dahlia is worthy of the admiration it received, but mankind in their treatment of and attachment to flowers, are governed by the same principles which too commonly

regulate their conduct to their fellow men. A new acquaintance, whose feelings and opinions harmonize with our own, for a while outshines and takes precedence of old and well tried acquaintances, but at length the whole character becoming more fully developed, it is found that taken in the aggregate, he is not more to be esteemed than the rest ; the new acquaintance then falls into the same rank with, and shares in the general regard which is awarded to, the whole circle. So has the Dahlia now taken rank as a favourite flower among many others, and we like to see a few of its family in our gardens at the proper season, but are careful to avoid undue familiarity, lest we should be favoured with so great an abundance of its race as to exclude others, equally prized, from our borders.

One effect of this re-action, if such it may be termed, has been the restoration of the Hollyhock to its proper position as a favourite autumnal flower. From its first introduction into England in the early part of the sixteenth century, it has received more or less of the careful cultivation of every Englishman who has possessed a garden and with it any pretension to taste. Its tall and stately stem, studded with its splendid flowers of richest rose colour, pale sulphur, delicate pink, or deep maroon, could command no less. It is frequently known to be eight feet high, and we have seen one during the present year whose stem measured nine feet six inches in length, and from the root

of which seven offshoots had attained the height of between four and five feet, and were all covered with a profusion of full blown flowers early in the month of October, before the main stem had ceased to expand its flowers at the summit.

The Hollyhock is a native of the East; and the common parent of our garden varieties is said to have been brought from China. Pliny is supposed, by some, to have described this plant, when he speaks of one “as a rose growing on stalks like the Mallow.” Alston in his notes on the second Eclogue of Virgil’s Bucolic, where the Hibiscus is mentioned, remarks that Pliny distinguishes between that plant and the *Althaea* (Hollyhock), but that Dioscorides and Galen hold them to be the same. The learned Dr. Martyn questions the identity of the two, and was somewhat doubtful as to the fact of the Hollyhock being of the same species as our Mallows.

Seeds have been obtained from India, the produce of which yielded single red flowers; seeds from Madras afforded us plants with many different coloured flowers; and Linnæus ascribes it to Siberia.

To the amateur who cultivates the Hollyhock simply on account of the beauty of its flowers, it is of but little importance whence we have obtained the plant, or whether it be a mallow or not; he will be content to let the opinions of Pliny, and Dioscorides, Galen, and Dr. Martyn, be

discussed and advocated, settled or held in abeyance, as they please, by the learned on whose shoulders the mantles of these great men have fallen. It is enough for him to know that by accident or art the numerous varieties of this magnificent flower have been derived from seeds collected from various quarters of the globe, and that consequently our gardens are enriched with such Hollyhocks as are not to be met with in the native locality of any one kind.

The Hollyhock belongs to the sixteenth class (*monadelphia*) and the seventh order (*Polyandria*) in the Linnaean system; and to the order *Malvaceæ* in the grand Dicotyledonous division in the natural system.

SEED COLLECTING.—The receptacles containing the seed of the Hollyhock should be gathered during dry weather, as soon as they are perfectly ripe, and should then be placed in a situation where they are not likely to become damp during the winter; while at the same time it is desirable not to put them where they will be dried up. It may be ad isable to record here what Miller says as to the constancy of the Hollyhock. Where seed is carefully saved from the most double flowers, the greatest number of the plants arising therefrom will bear flowers the same as those from which they were taken, both as to the colour and the fulness of the flower, provided no plants

with single flowers or bad colours are permitted to grow near them. It is therefore evident that if you desire to preserve double flowers alone, it will be necessary to remove those plants which put forth single flowers as soon as they appear.

SEED SOWING AND MANAGEMENT OF THE YOUNG PLANTS.—Prepare beds of light earth of the size suited to the quantity of your seed, which sow about the middle of April. When they have germinated, and the young plants have six or eight leaves each, they must be removed into nursery beds, and be planted twelve or fourteen inches apart from each other; and if the season be dry, they must be well watered until they have taken root; here they will require but little attention, except that which is necessary to keep them free from weeds, and in October they may be planted out where they are to remain, or if desirable they may be left in the nursery beds until January or February, when they may be removed to the situation where they are required to flower.

SOIL.—The Hollyhock thrives very well in good ordinary garden mould; their size may be increased by having the mould well dunged before planting, but as the plant is very little more than a biennial, it may be questioned whether its permanency may not be affected by

thus forcing it. It is a plant that frequently dies off suddenly, apparently from exhaustion of its vital powers, and it has been suggested, that this is a probable consequence of the seed having been sown too early in the season; to remedy this, it is recommended that the seed be sown in June, and when the plants have attained the height of three inches, that they should be thinned, and afterwards be removed before winter to the situation where they are expected to flower. When they have flowered, the stem should be cut down, and the root removed again to a spot previously well manured. By this treatment it is believed that choice varieties may be preserved for years.

INSECTS.—The earwig infests this plant to an almost incredible extent; when the flowers are in full bloom they are filled with them, and the flower cup containing the seed receptacle is a favourite harbour for them.

THE END.

APPENDIX.

1. LIST OF AMARYLLIDACEÆ.
2. ,,**CALCEOLARIA.**
3. ,,**CINERARIAS.**
4. ,,**PINKS.**
5. ,,**POLYANTHUSES.**
6. ,,**RANUNCULUSES.**
7. ,,**VERBENAS.**

